

# NOTES ON SAWFLIES, WITH DESCRIPTIONS OF NEW SPECIES.

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The following paper, which deals with sawflies collected from various parts of the world, is presented for publication now because it contains miscellaneous new species and notes which can not well be included in any revision in progress, and as some of the new species are of economic importance it is desirable that their names be made available. Some of the sawflies were collected by Messrs. Bryant and Palmer, in Java. All of these species have been worked up, and as all of them were new, a complete report of the sawflies of this expedition will be found on the following pages. Most of the Nearctic species described have been received for determination through the Bureau of Entomology. A synopsis of the Nearctic species of the genera *Lagium* and *Labidia* is included, as it may be useful in determining the species described as new.

This paper, which is the second stated contribution from the Branch of Forest Insects, Bureau of Entomology, which has appeared in these proceedings,<sup>1</sup> is the result of work on miscellaneous material accumulated by the bureau and from the collection of the Museum in connection with the study of sawflies injurious to forest trees.

## Superfamily MEGALODONTOIDEA.

Genus PAMPILIUS Latreille.

PAMPILIUS (PAMPILIUS) NIGRITIBIALIS, new species.

*Male*.—Length 7 mm. Anterior margin of the clypeus broadly rounded, from the bases of the antennæ and extending on the clypeus is a U-shaped carina; lateral supraclypeal area dull; frontal crest very strong so the face is perpendicular, the crest deeply broken by the antennal furrows; a V-shaped area above the crest, defined by carinæ, the surface granular; anterior ocellus nearly completely enclosed by a carina, just in front of the ocellus is a smooth depression; posterior orbits and behind the supraorbital line polished, with a few

<sup>1</sup> Proc. U. S. Nat. Mus., vol. 41, 1911, pp. 377-411.

scattered punctures; postocellar area slightly longer than the latrad width; antennæ 25-jointed, the third joint about one-fifth longer than the fourth; mesonotum polished, with a few scattered punctures; hypopygidium broadly rounded apically. Black; front below crest except the antennal furrows, scape beneath, spot on mandibles, palpi, spot on superior posterior orbits, tegulæ, spot on meso- and meta-scutellums, four anterior legs below trochanters, and posterior femora bright yellow; abdominal segments four to six rufous; wings hyaline, viterous; venation pale brown.

Oxbow, Saskatchewan, Canada. Two males, one June 19, 1907 (type), the other June 15, 1907, collected by Fredrick Knab.

*Type*.—Cat. No. 14511, U.S.N.M.

### Superfamily TENTHREDINOIDEA.

#### Family ARGIDÆ.

#### Genus ARGE Schrank.

##### ARGE GEEI, new species.

Very like *pagana* (Panzer) but may be separated from it by the following characters: Apical margin of the clypeus subdepressed; frontal basin slightly broadening in front of the anterior ocellus; postocellar line subequal with the ocellocular line (in *pagana* it is much less); the basal joint of the anterior and posterior tarsi longer; abdomen with fine, short hair the color of the tergument; nates more sharply pointed; and minor, unimportant differences in venation.

Soochow, China. Six females from N. Gist Gee, for whom the species is named.

*Type*.—Cat. No. 14484, U.S.N.M.

##### ARGE SALICIS, new species.

*Hylotoma pectoralis* SCHWARZ, Proc. Ent. Soc. Wash., vol. 11, 1909, p. 106.

The type of *Arge pectoralis* Leach is apparently lost, at least it is not in the British Museum, and as the description applies equally well to any one of a number of species, it is deemed advisable to consider the species described by Leach as undeterminable.

*Salicis* is related to *dulciaria* Say, as determined by Walsh, but may be separated from that species by the middle basin being closed below and distinctly separated from the middle fovea. There are also some differences in the saws and the genitalia, and these will be figured and described elaborately in a revision of the American Arginæ.

Plummer's Island, Maryland. Many males and females collected, or bred from larvæ, on the *Salix niger*.

*Type*.—Cat. No. 14759, U.S.N.M.

The above short description is offered at this time so the parasites of this species may be given their correct host's names.

Genus *NEOPTILIA* Ashmead.*NEOPTILIA MALVACEARUM* (Cockerell).

*Nematoneura malvacearum* COCKERELL, Insect Life, vol. 7, No. 3, 1894, p. 252.

In characters which may be useful to separate genera this species differs from the type of the genus in the rather shorter flagellum and third basitarsis. The nonclaviform antennæ exclude it from *Nematoneura*. The antennæ are about as long as the mesonotum; the flagellum is of nearly uniform width throughout.

Judging from the description *Rhagoxya* is a synonym of *Neoptilia*.

## TANYPHATNIDEA, new genus.

Belongs to Sterictiphorinæ. In Konow's latest tables to this group this genus would seem to run to *Nematoneura* Andre; or, assuming that the flagellum is not claviform, to *Tanyphatna* Konow. From both of these genera it may be separated by the second and third cubital cells, each receiving a recurrent vein.

Head much narrower than the thorax; clypeus slightly emarginate; antennæ inserted near the middle of the face; malar space large, greater than the width of the mandibles at the base; posterior orbits broad; ocelli in a low triangle, the lateral ones on the supra-orbital line; pedicellum very short, much wider than long; flagellum rather long and thickening apically; thorax normal; propodeum chitinous; tibiæ without spines; basitarsis III much shorter than the following joints; sheath broad basally, narrowed apically; tarsal claws simple; basal vein joining the costa at the origin of the cubitus; radial cell appendiculate; four cubital cells, the third large, the second and third each receiving a recurrent vein; transverse median near the middle of the cell; hind radial cell appendiculate; two discal cells; lanceolate cell subequal in length with the petiole; anal vein normal.

*Type*.—*Tanyphatnidea microcephala* Rohwer.

## TANYPHATNIDEA MICROCEPHALA, new species.

*Female*.—Length 8 mm. Labrum broadly rounded apically, rather long; clypeus depressed apically, convex basally, the apical margin arcuately emarginate, sharply defined above by the suture; supraclypeal foveæ deep, punctiform; supraclypeal area flat; antennal foveæ present laterally, elongate; middle fovea elongate and extending to the anterior ocellus; postocellar area obsolete; postocellar line much shorter than the ocellocular line; antennæ about as long as the thorax; stigma long, strongly tapering; first recurrent vein in basal third of cell, second recurrent a little basad of the basal third; third transverse cubitus straight, about half as long again as the

second transverse cubitus; transverse median of the hind wings in apical fourth of cell. Head, mesosternum, scutellum, metanotum, and dorsal part of the abdomen blue-black; antennæ and legs (except the anterior tibiæ within, which are piceous) black; the rest of the insect reddish-yellow; wings dark brown, venation black, except the costa is reddish. Sheath in part black.

Tjibodas, Mount Gede, Java. Female collected September 1909 at an altitude of 4,000 feet by Bryant and Palmer.

*Type*.—Cat. No. 14509, U.S.N.M.

### Family DIPRIONIDÆ.

#### Genus DIPRION Schrank.

##### DIPRION GRANDIS, new species.

*The Bull Pine Sawfly* SWENK, 24th Annual Report, Nebraska Agricultural Experiment Station, 1911, pp. 1-33.

As this species is of economic importance, the following description is given so the name will be available; a more elaborate description will be published in a revision of the North American Diprionidæ.

It is related to *townsendi* (Cockerell), but may be separated from this species by the emargination of the last ventral abdominal segment, not being more than one-fourth as deep as wide; third and fourth joints of the maxillary palpi being subequal and the antennæ being 24 to 26 jointed; scutellum also sparsely punctured. Female length 11.5 mm.

Crawford, Sioux County, Nebraska.

Males and females bred from the larvæ on *Pinus scropulorum* by M. H. Swenk.

*Type*.—Cat. No. 14758, U.S.N.M.

### Family TENTHREDINIDÆ.

#### Subfamily ALLANTINÆ.

#### Genus AMETASTEGIA Costa.

##### AMETASTEGIA (EMPHYTINA) PALLIDISCAPA Rohwer.

*Ametastegia (Emphytina) pallidiscapa* ROHWER, Proc. U. S. Nat. Mus., vol. 41, No. 1866, 1911, p. 401.

The second "i" was by error omitted in the original publication. The specific name should be *pallidiscapa*.

#### ALLANTIDEA, new genus.

Belongs to Allantini and is related to *Allantus* Panzer, from which it may be separated by the nasal margin of the eyes strongly con-



verging to the clypeus, the position of the transverse median and other characters. In habitus this is related to *Taxonus* Hartig, but the hind basitarsis is much shorter than the following joints united, so it falls in Allantini.

Clypeus broad, short, very deeply emarginate, malar space wanting; eyes large, strongly converging, separated at the clypeus by but little more than their length; posterior orbits broad, but their greatest diameter less than the cephal-caudad diameter of the eye; antennæ rather stout, thickened in the middle, third joint much longer than the fourth, pedicellum but little longer than the apical width; venation very like *Taxonus*; transverse median distinctly, but not markedly, basad the middle of the cell; tarsal claws bifid, the inner tooth shorter.

*Type*.—*Monophadnus bengalensis* Cameron.

#### Genus MONOSTEGIA Costa.

##### MONOSTEGIA NEARCTICA, new species.

From *Monostegia martini* MacGillivray this may be distinguished by the pale clypeus and scutellum.

*Female*.—Length 6.5 mm. Apical margin of the labrum broadly rounded; clypeus broadly, arcuately emarginate, lobes low rounded apically; supraclypeal foveæ confluent with the antennal foveæ; supraclypeal area gently convex; middle fovea elongate extending to the anterior ocellus; antennal furrows complete; postocellar line shorter than the ocellocular line; postocellar furrow present; postocellar area about one-third broader than long; third antennal joint one-third longer than the fourth; stigma gently rounded below; sheath straight above, rounded apically (more strongly so ventrally). Reddish yellow; head (except clypeus, labrum, and mandibles), prescutum and scutum (except sutures), mesopectus and sheath black; wings dusky hyaline, venation dark brown.

*Male*.—Length, 6.5 mm. Hypopygidium gently rounding to a truncate apex. Differs from the female in the piceous antennæ and in having a large part of the mesepisternum black.

Newtonville, Massachusetts, June, 1906. Bred specimens issuing June 24-25, 1906. Host ?

*Type*.—Cat. No. 14699, U.S.N.M.

#### Genus PSEUDOSIOBLA Ashmead.

This genus belongs to the tribe Eriocampini.

##### PSEUDOSIOBLA FLORIDANA (Provancher).

Three males from Newington, Fairfax County, Virginia, May 30, 1911, and June 4, 1911 (S. A. Rohwer), differ from the type only in the following characters: labrum, clypeus entirely and tegulæ black;

bases of anterior femora and apices of hind tibiæ black, not brownish black.

*Female*.—Length 10 mm. The female differs from *robusta* (Kirby) in the following characters: postocellar area slightly wider posteriorly than the cephal-caudad length (in *robusta* the posterior width is about twice as wide as the cephal-caudad length); posterior and superior orbits more closely punctured; wings and stigma darker apically.

Newington, Fairfax County, Virginia, four June 4, 1911, three May 30, 1911 (S. A. Rohwer). Glencarlyn, Virginia, one female May 31, 1911 (S. A. Rohwer). This species in the adult is very sluggish. It flies around *Cephalanthus* just as the flowers are beginning to form.

In couplet 1, on page 403, Proc. U. S. Nat. Mus., vol. 41, No. 1866, 1911, the last "second" should read "third."

#### Genus XENAPATES Kirby.

Syn. *Probleta* KONOW.

Belongs to Allantiniæ, tribe Taxonini.

Cameron and Kirby, in describing the type of *Xenapates* (*Dineura* ? *africana* Cameron), erroneously say that the anal cell of the fore wings is petiolate and that the genus is related to *Blennocampa*. An examination of the type proved that the anal cell of the fore wings is the same as (*Monophadnus*) *Allantidea bengalensis* (Cameron), which was placed by Kirby in *Eriocampa*; that is, the anal cell is of the normal type found in the Allantiniæ, but the second anal is not so constricted basally. The *Tenthredo incerta* Cameron belongs to *Xenapates*. This last-mentioned species has been placed in *Probleta* by Konow and certainly agrees with his generic description. The type of *Probleta*<sup>1</sup> has not been studied, but judging from the description and the inclusion of *incerta* (Cameron), it is synonymous with *Xenapates*.

A male of *Xenapates incerta* (Cameron) has been taken at Buxar Duars, Bengal, India, May, 1907, by D. Nowrojee.

#### Subfamily TENTHREDININÆ.

##### Genus SIOBLA Cameron.

Syn. *Encarsioneura* KONOW.

This genus belongs to the tribe Tenthredinini, where it is related to *Lagium* and *Sciapteryx*. The type of *Siobla mooreana* Cameron is in the British Museum. I have examined it and find it congeneric with *Tenthredo sturmi* Klug. I therefore consider *Encarsioneura* Konow to be the same as *Siobla* Cameron.

<sup>1</sup> The type of *Probleta* is *Probleta collaratus* Konow, the genus being monobasic and having been described on p. 86, and not p. 161, Zeitschr. Syst. Hym. Dipt., vol. 8, 1908.

The following species belong to this genus: *ferox* (Smith), *mooreana* (Cameron), *pacifica* (Smith), *ruficornis* (Cameron), *sturmi* (Klug), and *venusta* (Konow).

*Eriocampa major* Cameron and *E. punctata* Cameron I have not seen. Konow places them in *Encarsioneura*. If he is correct, they should be added to the above list.

I have examined the types of *Macrophya flavipes* Smith and *Siobla bicolor* and find that they do not belong to *Siobla*.

*Tenthredo incerta* Cameron has been referred to *Siobla*, but belongs to *Xenapates* Kirby.

#### Genus RHOGOGASTER Konow.

##### RHOGOGASTER TRUNCATUS, new species.

Similar to *Rhogogaster laterarius* (Cresson), but that species has the hind coxæ black; the base of the wings and venation basally yellowish; and the sheath rounded below. *Rhogogaster addendus* (Cresson) has the stigma tapering apically and is otherwise different.

*Female*.—Length 9 mm. Nasal margins of eyes strongly curved, reniform; labrum truncate; clypeus squarely emarginate, lobe truncate; antennal and supraclypeal foveæ confluent; antennal and postocellar furrows distinct; postocellar area transverse; third antennal joint about one-third longer than fourth; stigma truncate; sheath parallel sided, truncate apically. Black; clypeus, labrum, mandibles except piceous apices, face below antennæ, inner orbits (slightly interrupted before top of eye) and extending to occiput, curving inwardly, most of posterior orbits, most of pronotum, tegulæ, two lines on scutum, scutellum, metascutellum, large spot on mesepisternum, spot on mesosternum, mesepimeron, metapleuræ, sides and ventral aspect of dorsal segments, and apices of ventral segments yellow; legs yellow; with the following parts black: coxæ above, four anterior tibiæ and tarsi above, interrupted line on posterior femora above, posterior tibiæ above and posterior tarsi. Wings hyaline, faintly dusky, iridescent; venation black, except base of stigma, which is yellow.

Blue Mountains, Washington. One female collected July, 1896, by C. V. Piper.

*Type*.—Cat. No. 14298, U.S.N.M.

##### RHOGOGASTER PITOHATUS, new species.

Differs from *truncatus* in having the sheath straight above and broadly rounded below.

*Female*.—Length 9 mm.

Easton, Washington; Santa Cruz Mountains, California; Alameda, California; Oregon (Koeble); Reno, Nevada (Wickham).

*Type*.—Cat. 14299, U.S.N.M.

Genus *SCIAPTERYX* Stephens.*SCIAPTERYX COQUILLETI*, new species.

Differs from the genotype of *Sciapteryx (costalis)* Fabricus in the shorter malar space and larger metepimeron, besides many minor characters.

*Female*.—Length 9 mm. Labrum truncate apically, sides subparallel; clypeus short, convex, angulately emarginate; interantennal line slightly shorter than the antennocular line; supraclypeal foveæ shallow, not distinctly connected with the antennal foveæ, but connected with each other; antennal and postocellar furrows obsolete, as is also the middle fovea; postocellar line subequal with the ocellocipital line, but distinctly shorter than the ocellocular line; malar space shorter than the pedicellum; fourth and fifth antennal joints subequal; head and thorax closely and rather coarsely punctured, in the front punctato-granular; stigma angulate at basal third, obliquely truncate apically; abdomen impunctate; sheath straight above, rounded from upper apex. Black; clypeus, labrum, spot on mandible, palpi, angles of pronotum, tegulæ, spots on propodeum, apical dorsal segment, apices of four anterior femora, their tibiæ and tarsi, posterior femora except a black line beneath, posterior tibiæ except apex, most of hind basitarsis yellow; head and thorax with gray hairs; wings hyaline, iridescent; venation pale brown.

*Male*.—Length 9 mm. The above description will fit the male very well. The antennæ are slightly longer and somewhat flattened; hypopygidium broadly rounded apically; apical ventral segment deeply emarginate.

Los Angeles County, California. A male and female collected by D. W. Coquillett, for whom the species is named.

*Type*.—Cat. No. 14256, U.S.N.M.

Genus *LAGIUM* Konow.

The genus *Lagium* was founded by Konow for *Tenthredo atroviolaceus* Norton. The species of this genus are closely related and can be separated only by the use of apparent trivial characters, except in the males where the genitalia offer good differences. It is not always possible to associate the sexes, and in none of the following cases is there positive proof that the males and females placed together are the same species, but by deduction it seems reasonably certain that they are. Except for notes on the larva of *peratrum*, which feeds on *Sambucus*, nothing is known about the life history of the genus. Dr. H. G. Dyar, in describing *peratrum*, said that the larvæ were "remarkably specialized" for Tenthredinidæ. The adult is one of the more specialized forms of Tenthredinini. The terms used in the genitalia



are those adopted by the writer. They are in the main those used by Hartig where the points here mentioned are figured. There is, as far as known, but little antigeny in this genus.

The Japanese species of this genus form a distinct group, but are congeneric with the type of the genus.

*Key to the North American species.*

- Males ..... 1.  
 Females ..... 5.
1. Labrum sharply angular apically; cochlearium short, and broader apically..... 2.  
 Labrum obtusely angular or rounded, apically; cochlearium long, and not decidedly broader apically..... 3.
2. Abdomen beyond the propodeum reddish; metanotum coarsely punctured; third antennal joint much longer when compared with the fourth; stigma oblique apically..... *tardum*.  
 Abdomen entirely black; metanotum nearly impunctate; third antennal joint but little longer than the fourth; stigma truncate apically..... *angulabre*.
3. Antennal ridges obsolete; area between the ocelli and orbit coarsely sculptured.... *planifrons*.  
 Antennal ridges distinctly present; area between the ocelli and orbit very sparsely sculptured..... 4.
4. Apical joint of hind tarsi subequal in length with the two preceding, the third and fourth joints more robust; cochlearium as in figure 2c ..... *atroviolaceum*.  
 Apical joint of hind tarsi distinctly shorter than the two preceding joints, the third and fourth joints slender and more elongate; cochlearium as in figure 2e..... *peratrum*.
5. Abdomen beyond the propodeum reddish..... 6.  
 Abdomen entirely black..... 7.
6. Antennal ridges well defined; area between the ocelli and eyes coarsely sculptured; apical angulation of labrum with the sides gently sloping so the angle is broader.. *erythrogastrum*.  
 Antennal ridges obsolete; area between the ocelli and eyes sparsely sculptured; apical angulation of labrum with a more acute angle..... *tardum*.
7. Antennal ridges well defined at least just below ocelli..... *peratrum*.  
 Antennal ridges obsolete..... 8.
8. Sheath distinctly oblique below; lower apical margin of napes scarcely produced; wings blackish..... *planifrons*.  
 Sheath rounded nearly evenly; lower apical margin of nates decidedly produced; wings brownish ..... *atroveolaceum*.

**LAGIUM TARDUM (Norton).**

*Allantus tardus* NORTON, Boston Journ. Nat. Hist., vol. 7, pt. 2, 1860, p. 246, No. 21.

*Tenthredo atroviolacea* var. *tardus* NORTON, Trans. Amer. Ent. Soc., vol. 2, 1869, p. 240; Norton Catalogue, p. 172.

What is determined as this species agrees with specimens determined by Cresson from Massachusetts and also specimens in American Entomological Society's collection. It seems probable that Norton's type is lost, although it may be in the Peabody Museum. Judging from the material in the collection this is a northern species, there being no specimens from farther south than Washington, District of Columbia.



## LAGIUM ERYTHROGASTRUM, new species.

Related to *tardum*, but may be separated by the foregoing table from that species.

*Female*.—Length 12 mm. Emargination of clypeus at base less than the width of lobe at base; supraclypeal foveæ not connected with the antennal foveæ; middle fovea not defined but in its place a depressed area between the antennal ridges; area between the ocelli and orbits sculptured like the front; postocellar line indicated; postocellar area about twice as wide as the length; occiput slightly carinate behind postocellar area; pedicellum longer than broad; rest of antennæ want-

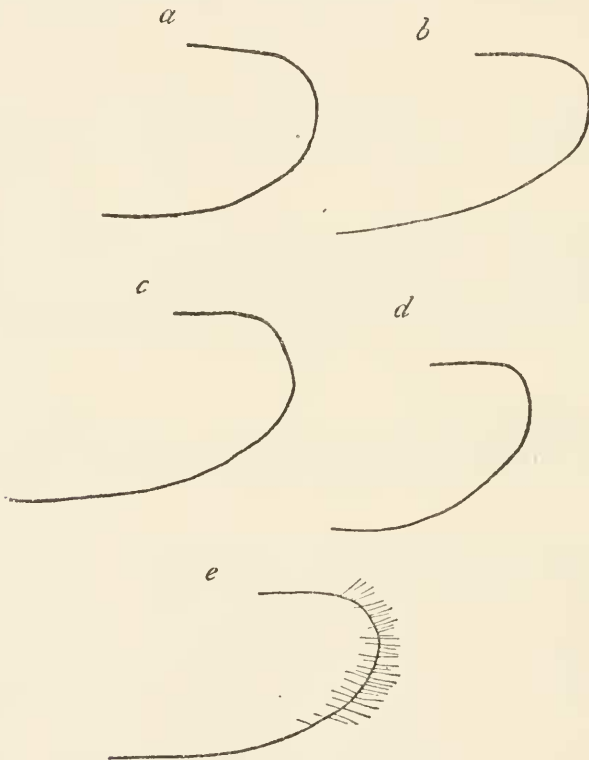


FIG. 1.—SHEATHS OF LAGIUM. *a*, PLANIFRONS; *b*, TARDUM; *c*, ATROVIOLA CEUM; *d*, PREATRUM; *e*, ERYTHROGASTRUM.

ing; stigma nearly straight below, oblique apically; sheath nearly evenly rounded apically; lower, apical angle of nates scarcely produced; apical joint of hind tarsi distinctly shorter than the two preceding; inner tooth of claw shorter than the outer. Black; abdomen beyond the propodeum reddish; anterior tibiæ and tarsi in front brownish; posterior coxæ with a white spot; wings brownish.

Baldwin, Kansas. One female collected May, 1897, by Bridwell.

*Type*.—Cat. No. 14251, U.S.N.M.

## LAGIUM ANGULABRE, new species.

Very like *erythrogastrum* structurally and it may prove to be the male of that species.

*Male*.—Length 10.5 mm. In the characters of head and thorax this agrees with *erythrogastrum*. Third antennal joint much longer than the fourth; hypopygium subtruncate. Entirely black except the pale brown intermediate knees and anterior legs below trochanters.

Baldwin, Kansas. One male collected May, 1897, by Bridwell.

*Type*.—Cat. No. 14252, U.S.N.M.

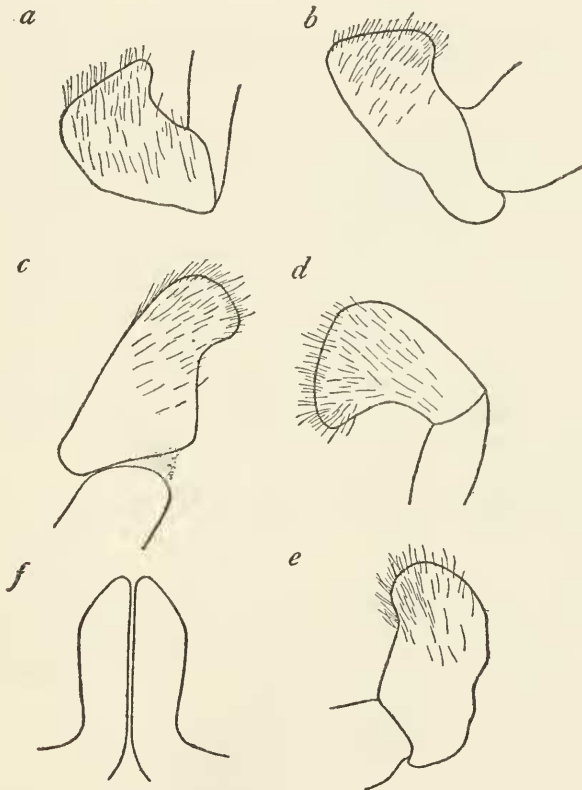


FIG. 2.—GENITAL PARTS OF LAGIUM MALE. a-c, LATERAL ASPECT OF COCHLEARIUM; a, ANGULABRE; b, PLANIFRONS; c, ATROVIOLACEUM; d, TARDUM; e, PREATRUM; f, VENTRAL VIEW OF THE PRÆPUTIUM OF PREATRUM.

## LAGIUM PERATRUM (Dyar).

*Tenthredo atrovioleacea* var. *peratra* DYAR, Journ. New York Ent. Soc., vol. 5, 1897, p. 192, male.

*Type*.—Cat. No. 4137, U.S.N.M.

This species is also found in Pennsylvania and Michigan. The type locality is Franconia, New Hampshire.

## LAGIUM ATROVIOLACEUM (Norton).

*Allantus atroviolaceus* NORTON, Boston Journ. Nat. Hist., vol. 7, pt. 2, 1860, p. 36, male and female.

*Tenthredo atroviolacea* NORTON, Trans. Amer. Ent. Soc., vol. 2, 1869, p. 239; Norton Catalogue, p. 171.

Norton's type of this species seems to be lost, as it is not in Philadelphia; however, it may be in the Peabody Museum. What has been restricted as this species was determined *atroviolaceus* by Cresson, and is represented in the collection only by specimens from New Jersey.

## LAGIUM PLANIFRONS, new species.

In the female this species is very close to *atroviolaceum*, but in the male it is easily separated. The foregoing table will aid in its determination.

*Female*.—Length 14 mm. Labrum obtusely pointed; emargination of the clypeus distinctly broader than the lobes; supra-clypeal foveæ not connected with antennal foveæ; middle fovea obsolete; antennal furrows broad, shallow and nearly continuous; postocellar furrow wanting; postocellar area about twice as wide as long; occiput carinate in middle; area between ocelli and orbits sparsely punctured; pedicellum with the length and width subequal; third antennal joint much longer than fourth; stigma rounded below, apically subtruncate; metanotum strongly punctured; sheath oblique below; nates not produced below; apical joint of hind tarsi subequal with the two preceding. Black; anterior tibiæ and tarsi pale brown beneath; hind coxæ with a pale spot; wings black.

*Male*.—Length 10 mm. Agrees with the above description of female, except the posterior coxæ are black. Hypopygidium broadly rounded.

Virginia; East Falls Church, May 13, 1911; Pohick Run, June 4, 1911; Newington, May 3, 1911, and June 4, 1911. Above collected by S. A. Rohwer. Also one female from Dixie Landing.

*Type*.—Cat. No. 14253, U.S.N.M.

## ZALAGIUM, new genus.

Intermediate between *Lagium* Konow and *Macrophya* Dahlbom, but superficially more like *Lagium*. In synoptic tables with the width of facial quadrangle as the primary character, *Zalagium* will fall near *Macrophya* from which it will be separated by the long antennæ, which are flattened and constricted at the joints; the occiput not being carinated; and the normal hind coxæ. *Zalagium* may be separated from *Lagium* by the following characters: Eyes closer together at the clypeus than the length of the eye; shorter malar space; long clypeus and labrum; different punctuation and aulation of head; and the

different genitalia of the male, the ventral aspect of the præputium being very short, as in figure 3a, and the apices of cochlearium being simple.

*Type*.—*Zalagium clypeatum* Rohwer.

Only two species of this genus are known from North America. These have the metanotum practically impunctate.

Abdominal segments three to six, reddish yellow; middle fovea very poorly defined; hypopygidium obtusely pointed..... *cinctulum*.  
Abdomen entirely black; middle fovea well defined; hypopygidium subtruncate and slightly emarginate apically..... *clypeatum*.

#### ZALAGIUM CINCTULUM

(Norton).

*Tenthredo atrovioleacea* var. *cinctula* NORTON, Trans. Amer. Ent. Soc., vol. 2, 1869, p. 240, female; Norton Catalogue, p. 172.

*Macrophya abbotii* KIRBY, List Hym. British Museum, vol. 1, 1882, p. 269, pl. 10, fig. 14, male and female.

Norton's type is perhaps lost. Every specimen in the collection has the posterior coxæ entirely black and the species extends from Massachusetts to Georgia. It is therefore probable that Norton omitted to say the black spot was wanting. It is certain that the species here treated as *cinctulum* is the same as *abbotii*.

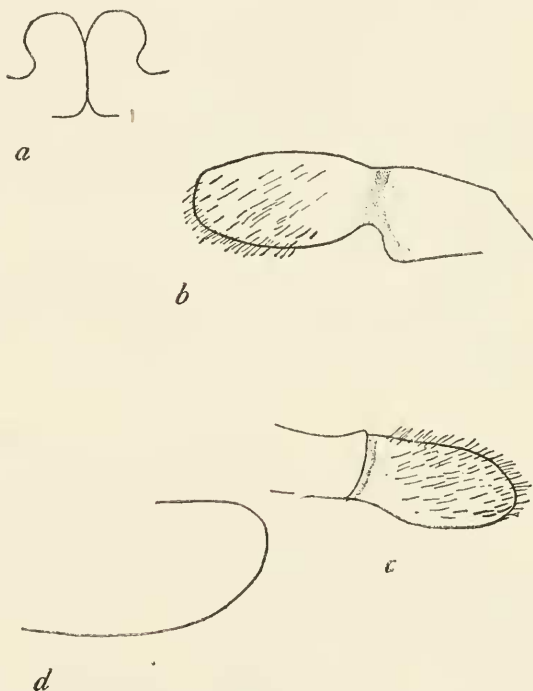


FIG. 3.—GENITAL PARTS OF ZALAGIUM. a, VENTRAL ASPECT OF PRÆPUTIUM OF CLYPEATUM; b-c, LATERAL ASPECT OF COCHLEARIUM; b, CINCTULA; c, CLYPEATUM; d, LATERAL VIEW OF SHEATH OF CINCTULUM.

#### ZALAGIUM CLYPEATUM, new species.

Except for the characters mentioned in the table and the rather shorter antennæ this species is the same as *cinctulum*.

*Male*.—Length 10 mm. Pedicellum about twice as broad as long; antennal furrows present only just above the antennæ; median frontal area slightly raised; area between ocelli and orbits depressed;

stigma tapering to apex. Entirely black, except the anterior legs in front below the trochanters, which are whitish.

Long Island, New York. One male from the Ashmead collection.  
*Type*.—Cat. No. 14250, U.S.N.M.

Genus MACROPHYA Dahlbom.

MACROPHYA ZABRISKIEI, new species.

*Female*.—Length 8 mm. Related to *xanthonota* Rohwer, but may be separated from it by the following characters: Clypeus and labrum all yellow; postocellar line distinctly less than the ocelloccipital line; mesepisternum entirely black; abdomen entirely black; sheath parallel sided, apex rounded; stigma truncate apically; venation dark brown; four anterior legs below coxæ entirely pale; posterior tarsi entirely pale. Besides the color *zabriskiei* may be separated from *alba* by the arcuate emargination or the clypeus and shape of sheath.

*Male*.—Length 6.5 mm. The male agrees with the female, except that the clypeus is subsquarely emarginate. Hypopygidium broadly rounded apically.

Long Island, New York. One female and two males collected by J. L. Zabriskie from the Ashmead collection. One male from Canada, C. F. Baker collection. Named for J. L. Zabriskie, the collector of the types.

*Type*.—Cat. No. 14258, U.S.N.M.

MACROPHYA ALBA (MacGillivray).

*Macrophya pulchella alba* MACGILLIVRAY, Can. Ent., vol. 27, 1895, p. 285.

*Macrophya zonata* KONOW, Wien. Ent. Zeit., vol. 18, 1899, p. 44.

This species was described as a variety of *pulchella* by MacGillivray, but it is distinct enough to rank as a species. The mere fact that Konow did not like the name is not sufficient for him to give the species a new one.

MACROPHYA XANTHONOTA, new species.

Related to *alba* (MacGillivray), but may be separated by postocellar line being subequal with the ocelloccipital line (in *alba* the postocellar line is distinctly shorter) and the black coxæ. From *epinota* (Norton), which it also resembles, it may be separated by obsolete antennal furrows, pale spot on mesepisternum, and other characters.

*Female*.—Length 9 mm. Labrum subtruncate, the angles rounded; clypeus deeply arcuately emarginate, lobes triangular; supraclypeal foveæ punctiform and not connected with the antennal foveæ; antennal and postocellar furrows obsolete, as is also the middle fovea; antennæ of an intermediate length; head and thorax punctato-granular; stigma angulate near base, tapering to apex; abdomen impunctate; sheath straight above, obliquely truncate apically, tapering to



base. Black; line on clypeus, angles of pronotum, tegulæ, spot on mesepisternum, scutellum, posterior half of propodeum, apical margins of five apical dorsal segments, trochanters, bases of femora (the posterior ones broadly), four anterior tibiæ and tarsi beneath, base of posterior tibiæ, and post-basitarsis *yellow*; wings hyaline, slightly brownish, iridescent; venation pale brown.

The paratype differs in having a yellow spot on the labrum.

Fort Collins, Colorado (type): One female collected June 11, 1904. Milwaukee, Wisconsin. One female collected June 3, from the Ashmead collection.

*Type*.—Cat. No. 14257, U.S.N.M.

**MACROPHYA MELANOTA**, new species.

Superficially like *M. albomaculata* Norton, but that species, as determined by MacGillivray, has the antennal furrows present, while *melanota* has the antennal furrows obsolete. Related to *tibiator* Norton, especially varieties of this species with black hind tibiæ. From the typical form of *tibiator* it may be separated by the following characters: Postocellar area nearly quadrate, and bounded by fine furrows; antennæ cylindrical and more slender, with joints less distinctly defined; clypeus, postocellar area entirely, anterior femora beneath, propodeum and hind tibiæ black; coxæ pale apically and without a pale lateral spot on the hind pair; sheath sharply obliquely truncate.

*Female*.—Length 8 mm.

Northern Illinois. One female from the Ashmead collection.

*Type*.—Cat. No. 14261, U.S.N.M.

**MACROPHYA NIGRISTIGMA**, new species.

Allied to *Macrophya formosa* (Klug), but may at once be separated by the black stigma and other characters. From *Macrophya zabriskei* Rohwer it may be separated by the yellow scape.

*Female*.—Length 10 mm. Labrum broadly rounded apically; clypeus deeply, squarely emarginate, lobes truncate; antennal foveæ narrow, elongate; antennal furrows obsolete; head below the supraorbital line confluent punctured; above the supraorbital line shining, with scattered punctures; postocellar area not defined; postocellar line much shorter than ocellular line; third antennal joint about one-third longer than the fourth; stigma rather narrow, rounded below, obliquely truncate at apex; sheath nearly parallel-sided, obtusely rounded at apex. Black; clypeus, labrum, spot on mandibles, scape, angles of pronotum, tegulæ, apex of prescutum, scutellum, scutellar lobe, minute spot on mesepisternum, propodeum and terminal dorsal segment, yellow; legs yellow, bases of four anterior coxæ, spot on hind coxæ, apex of hind femora, base and apex of

hind tibiæ, base of hind basitarsis black. Wings hyaline, somewhat dusky; venation including stigma black.

In the paratype the spot on the mesepisternum is larger.

Harrisburg, Pennsylvania. One female collected by P. R. Myers, June 13, 1908 (type). Highspire, Pennsylvania. One female collected by W. S. Fisher, June 23, 1908.

*Type*.—Cat. No. 14570, U.S.N.M.

**MACROPHYA EXTERNIFORMIS, new species.**

Differs from *Macrophya externa* in having the emargination of the clypeus narrower, and more uniformly arcuate, and in shorter, stouter antennæ.

*Female*.—Length 8 mm. Labrum truncate, long, narrowing anteriorly; clypeus narrowly, deeply, arcuately emarginate; lobes triangular, rounded; supra-clypeal area flat, shiny; middle fovea indicated by a glabrous spot; antennal furrows obsolete; postocellar line slightly shorter than the ocellocipital; front closely confluent punctured; head behind the supraorbital line shining with scattered punctures; antennæ short, stout, of uniform thickness; the third joint but little shorter than the fourth and fifth combined; prescutum finely granular in the middle, punctate laterally; in the middle the punctures rather large; scutellum with large, distinct, separate punctures; stigma slightly broader basally, obliquely truncate apically; third cubital cell distinctly shorter than second on radius; sheath narrow, broadly rounded apically. Black; labrum, apex of clypeus, spot on mandibles, a small spot on posterior margin of propodeum, the four anterior tibiæ and tarsi beneath, spot on posterior tibiæ externally, all the trochanters, more or less, yellow; wings hyaline, apex dusky, venation dark brown.

Dane County, Wisconsin. One female collected June 20, 1900.

*Type*.—Cat. No. 14754, U.S.N.M.

**MACROPHYA NEBRASKENSIS, new name.**

*Macrophya sambuci* ROHWER, Can. Ent., vol. 41, 1909, p. 15; not (*Tenthredo*)

*Macrophya sambuci* LATREILLE, Hist. Nat. Ins., vol. 13, 1805, p. 131, or

(*Allantus*) *Macrophya sambuci* SCUDDER, Corresp. of Harris, 1869, p. 269.

**MACROPHYA LINEATANA, new species.**

*Female*.—Length 8 mm. Differs from *lineata* Norton in the following characters: Scape pale in front; stigma but slightly broader basally and truncate apically; intermediate femora entirely pale, hind tarsi black.

Virginia; Newington, Fairfax County. Female, May 30, 1911 (type); East Falls Church, May 13, 1911, female; Chain Bridge, June 14, female. Above collected by S. A. Rohwer. Kansas, Lincoln,

Nebraska, female, April 27, 1902, collected by L. Bruner. Pennsylvania, female from C. F. Baker collection.

*Type*.—Cat. No. 14260, U.S.N.M.

**MACROPHYA TENUICORNIS**, new species.

In Enslin's revision of the Palaearctic *Macrophya* this species runs to *annulicornis* Konow, but has the clypeus and labrum yellow and the antennæ long, so it can not be confused with that species. From other species it is quite distinct.

*Female*.—Length 10.5 mm. Labrum truncate; clypeus shallowly, broadly, squarely emarginate, lobes narrow rounded apically; supra-clypeal area flat, becoming somewhat convex between the antennæ; antennal furrows shallow, complete; middle fovea elongate; ocellocipital line one-third longer than the postocellar line; ocellocular line four times as long as the postocellar line; postocellar furrow obsolete; postocellar area slightly wider posteriorly, the anterior width about one-third greater than the length; front sunken, so the cephal-caudad diameter of the head at the antennæ is not as great as at the orbit; antennæ 6.5 mm. long, slender, the third joint nearly as long as the fourth and fifth; thorax closely, distinctly punctured; stigma slightly narrowing apically, apex truncate; third cubital cell shorter on the radius than the second; sheath narrow, straight above, rounded apically, more strongly so below. Black; clypeus, labrum, mandibles, fourth and fifth antennal joints above, angles of the pronotum, tegulæ, spot on the scutellum, line on metascutum, two large spots on propodeum, four anterior legs except the tips of the femora and tibiæ; spot on the posterior coxæ exteriorly, basal two-thirds of posterior femora, basal two-thirds of posterior tibiæ exteriorly, posterior tarsi, except apices, yellow or yellowish. Wings dusky hyaline, venation black.

Lebong, India. One female collected at 5,000 feet, September, 1908.

*Type*.—Cat. No. 14755, U.S.N.M.

**ZAMACROPHYA**, new genus.

Habitus and head of *Macrophya*, but the metepimeron is small, as in *Tenthredo*, etc. From *Labidia*, to which it is more closely allied, it may be separated by the entire absence of dilations above the antennal sockets, and feebly defined antennal foveæ, the front being flat as in *Macrophya*.

Belongs to the tribe Tenthredinini. Clypeus deeply emarginate, malar space very narrow; nasal margins of the eyes strongly converging to the clypeus; space between the eyes at the antennæ less than the length of the eye; antennal foveæ very small; no ridges from the nasal margins of antennæ, front flat as in *Macrophya*; occiput car-

inated; antennæ 9-jointed, short, stout, thickening apically, third joint much longer than the fourth; head and thorax coarsely punctured; metepimeron narrow, not nearly as high as the metepisternum, the dorsal margin strongly curved, hardly reaching to the propodeal spiracle; propodeum with a longitudinal suture; venation of normal type; legs similar to those of *Macrophya*, hind coxæ not quite as large as usual for *Macrophya*; abdomen short, stout.

*Type*.—*Zamacrophya nigrilabris*, Rohwer.

**ZAMACROPHYA NIGRILABRIS, new species.**

Superficially recalls *Macrophya succincta* Cresson.

*Female*.—Length 9 mm. Labrum long, narrowly rounded apically; clypeus polished, arcuately emarginate, lobes broad, truncate; supraclypeal foveæ small, close to the eyes, not confluent with the antennal foveæ; supraclypeal area sparsely punctured, gently convex, higher above; head coarsely striato-punctate; middle fovea and antennal furrows obsolete; postocellar area sharply defined on all sides, about twice as wide as long; postocellar line subequal with the ocelloccipital line; third antennal joint subequal in length with the two following; thorax closely, rather coarsely punctured; stigma narrow, rounded below, truncate apically; transverse radius strongly curved, received a little beyond the middle of the third cubital cell which is more than twice as broad at apex as at base and subequal in length with the first and second on the cubitus; sheath rather narrow, straight dorsally, rounded apically, oblique ventrally. Black; most of clypeus, mandibles, scape, pedicellum, dorsal and ventral margins of pronotum, most of scutellum, metepisternum, propodeum, apical margins of third and following segments, trochanters, four anterior femora beneath, tibiæ except at apex, tarsi (hind tarsi infusate), yellow; wings yellowish hyaline; venation pale brown, costa and stigma (except base) yellowish.

*Male*.—Length 9 mm. Very like the female. Hypopygidium broadly rounded apically.

Meadow Valley, Mexico. Many specimens collected by C. H. T. Townsend.

*Type*.—Cat. No. 14621, U.S.N.M.

A specimen labeled "Wooton 52" is probably from New Mexico.

**Genus TENTHREDO Linnæus.**

**Subgenus LABIDIA Provancher.**

The name *Labidia* Provancher can be retained as a subgenus only. Separated from *Tenthredo*, as far as Neartic species are concerned, by the short, clavate, seven or eight jointed antennæ, and by having the anal cell of the hind wings longly petiolate.



## TENTHREDO (LABIDIA) ANOMOCERUS, new species.

Very distinct in the black scutellum and propodeum; seven-jointed antennæ, and other characters.

*Female*.—Length 9 mm. Clypeus nearly impunctate, deeply, arcuately emarginate, lobes broad, rounded apically; supraclypeal and antennal foveæ confluent; supraclypeal area convex; middle fovea confluent with the well-defined ocellar basin; lateral walls of the ocellar basin rounded; antennal furrows complete; postocellar furrow obsolete; postocellar area defined laterally; postocellar line slightly

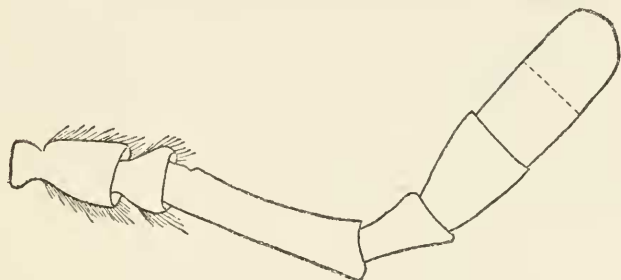


FIG. 4.—ANTENNA OF TENTHREDO (LABIDIA) ANOMOCERUS.

shorter than the ocelloccipital; antennæ seven-jointed, the apical two joints nearly consolidated; prescutum closely, sometimes confluent, punctured; scutum more sparsely punctured, with two large, nearly impunctate, areas; scutellum with separate punctures; scutellar lobe very coarsely sculptured; stigma rounded below, truncate apically; sheath broad, straight above, obliquely rounded below. Black; clypeus, labrum, mandibles (apices piceous), narrow line on the



FIG. 5.—ANTENNA OF TENTHREDO (LABIDIA) OPIMUS.

dorsal and ventral margins of pronotum, lateral spot on three basal tergites, narrow apical margins of following tergites and sternites, four anterior femora and tibiæ (except a black line above), four anterior tarsi, apices of posterior femora, their tibiæ (except apices), and tarsi beneath yellow. Wings clear hyaline; venation brown, costa and stigma yellowish. Pubescence black or blackish.

Banff, Alberta, Canada. One female from Sanson.

*Type*.—Cat. No. 14598, U.S.N.M.



## TENTHREDO (LABIDIA) SUBNIGRICEPS (Rohwer).

*Allantus subnigriceps* ROHWER, Can. Ent., vol. 41, 1909, p. 149, female.

*Type*.—Cat. No. 14271, U.S.N.M.

Nevada; New Mexico; Washington; California.

## TENTHREDO (LABIDIA) OPIMUS OPIMUS (Cresson).

*Allantus opimus* CRESSON, Trans. Amer. Ent. Soc., vol. 8, 1880, p. 15, male and female.

*Labidia columbiana* PROVANCHER, Addit. fauna Canada Hym., 1886, p. 21, male.

## TENTHREDO (LABIDIA) OPIMUS COLORADENSIS, new subspecies.

Separated from the typical *opimus* by the following characters: Hind femora black; dorsal walls of the ocellar basin sharply defined; ocellar basin rather longer, striato-granular; slightly smaller and markings paler. Female. Length 8 mm.

Short Creek, Colorado. One female.

*Type*.—Cat. No. 14599, U.S.N.M.

## TENTHREDO (LABIDIA) ORIGINALIS (Norton).

*Allantus originalis* NORTON, Trans. Amer. Ent. Soc., vol. 1, 1867, p. 261, female; Norton, Catalogue, p. 123, female.

Labrador; New Hampshire.

## TENTHREDO (LABIDIA) ALIENATUS, new species.

Readily separated from the foregoing species of *Labidia* by the obsolete ocellar basin.

*Female*.—Length 9 mm. Clypeus nearly impunctate, deeply arcuately emarginate, lobes broadly rounded apically; supraclypeal and antennal foveæ confluent; supraclypeal area convex, sparsely punctured; middle fovea large, deep; ocellar basin obsolete, but the area striato-granular; antennal furrows obsolete; postocellar furrow poorly defined; postocellar area more coarsely sculptured than the rest of the vertex, defined laterally by furrows; postocellar line subequal with the ocellocipital line; antennæ eight-jointed, the last three joints not sharply defined; prescutum more closely punctured than the scutum; scutellar lobe closely punctured; stigma nearly straight below, apex oblique; sheath narrow, straight above, truncate apically, oblique below. Black; clypeus, labrum, mandibles (apices piceous), line on the dorsal and ventral margins of pronotum, spot on scutellum, metepisternum, narrow apical margins of abdominal segments and propodeum, four anterior femora beneath, four anterior tibiæ (except dorsal apices), four anterior tarsi except a line above, hind tibiæ except apices, yellowish-white; pubescence black, wings hyaline, slightly yellowish; venation dark brown, stigma and costa yellowish.

Silverton, Colorado. Three females collected August 8, 1903, at an altitude of 12,000 feet, (One type). Russell County, Colorado. One female collected July 18 by H. S. Smith. Colorado. Mount Ranier, Washington, two females collected by C. V. Piper.

*Type*.—Cat. No. 14600, U.S.N.M.

TENTHREDO (LABIDIA) ANOMUS, new species.

Related to *alienatus*, but the sheath is obliquely rounded below, and the postocellar area is without furrows laterally.

*Female*.—Length 9 mm. Labrum very short; clypeus finely granular, anterior margin deeply squarely emarginate, the lobes truncate; supraclypeal and antennal foveæ confluent; supraclypeal area gently convex, very sparsely punctured; middle fovea deep, large; antennal furrows indicated by broad shallow furrows; ocellar basin obsolete, the area striato-granular; postocellar furrow obsolete; postocellar area sculptured similar to the adjoining vertex, not defined laterally; postocellar line slightly longer than the ocelloccipital line; antennæ eight-jointed, the last three joints not sharply defined; scutum and prescutum similarly punctured; scutellar lobe finely granular, with large punctures interspread; stigma straight below, oblique apically; sheath straight above, tapering from the pointed apex to the rather broad base. Black; clypeus, labrum, mandibles (apices piceous), spot on dorsal and ventral margins of pronotum, spot on scutellum, metepisternum, line on propodeum, lateral spots on two basal tergites, narrow apical margin of following tergites and sternites, four anterior femora beneath, four anterior tibiæ and tarsi (except dorsal apices of tibiæ), posterior tibiæ, except dorsal apices, hind tarsi more or less yellowish-white; pubescence of head black, that of thorax gray. Wings hyaline, slightly yellowish; venation dark brown, costa and stigma yellowish.

Colorado. One female from the C. F. Baker collection.

*Type*.—Cat. No. 14601, U.S.N.M.

*Key to the Nearctic species of Labidia.*

The following table is based on the females, as the male of only one species is known through specimens.

- |  |                       |
|--|-----------------------|
| Ocellar basin distinct.....  | 1.                    |
| Ocellar basin obsolete.....  | 4.                    |
| 1. Postocellar furrow obsolete; antennæ seven-jointed; scutellum and propodeum black.....        | <i>anomocerus</i> .   |
| Postocellar furrow present; antennæ eight-jointed; scutellum and propodeum (in part) yellow..... | 2.                    |
| 2. Sheath obliquely rounded below; mesepisternum black; (hind femora black)                      | <i>subnigriceps</i> . |
| Sheath subtruncate, rounded below; mesepisternum with a pale spot.....                           | 3.                    |

Key to the Nearctic species of *Labidia*—Continued.

3. Hind femora pale beneath; dorsal walls of the ocellar basin rounded; ocellar basin finely granular ..... *opimus opimus*.  
 Hind femora black; dorsal walls of the ocellar basin sharp; ocellar basin striato-granular ..... *opimus coloradensis*.
4. Mesonotum with three finely granular areas which contrast strongly with the coarsely punctured areas along the sutures; middle fovea obsolete; (mesepisternum and hind femora black) ..... *originalis*.  
 Mesonotum uniformly, coarsely sculptured; middle fovea large, deep. .... 5.
5. Sheath truncate apically; postocellar area bounded laterally by a furrow ..... *alienatus*.  
 Sheath obliquely rounded below; postocellar area without lateral furrows ..... *anomus*.

## Genus TENTHREDELLA Rohwer.

## TENTHREDELLA ELEGANTULA OBLIQUATA (MacGillivray).

*Tenthredo obliquatus* MacGILLIVRAY, Journ. New York Ent. Soc., vol. 5, Sept., 1897, p. 105.

*Tenthredo elegantula oregana* ROHWER, Proc. U. S. Nat. Mus., vol. 41, No. 1866, 1911, p. 411.

This subspecies varies in having the pectus black or with a pale spot. All the northern specimens differ from the southern ones, typical *elegantula*, in the entirely black prescutum. Specimens of *obliquata* determined by MacGillivray have been compared with the type of *oregana* and no differences of importance could be found.

## Subfamily MESSINÆ.

## NEOPOPPIA, new genus.

Belongs to Phyllotomini Rohwer. In Genera Insectorum *Neopoppia* runs to *Poppia* Konow, but differs from the descriptions of that genus in the deeply emarginate clypeus, the lateral ocelli being well below the supraorbital line, and the different venation of the hind wings. The genus *Poppia* Konow is known only through descriptions, but judging from these it probably belongs to the tribe Phyllotomini Rohwer.

Head transverse, posterior orbits narrow; eyes large, converging to the clypeus; malar space wanting; clypeus deeply emarginate; antennæ 9-jointed, pedicellum longer than the scape and much longer than wide, third joint longer than the fourth, basal joints hairy; thorax similar to *Caliroa* but rather more elongate; propodeal spiracle round and occupying the same position as in *Caliroa*; basitarsi III subequal in length with the following joints; claws with an erect inner tooth; wings differ from those of *Eriocampoides varipes* as figured by MacGillivray<sup>1</sup> in the transverse radius being interstitial with the second transverse cubitus, the basal vein not so strongly curved and more based of the cubitus, and a few minor points.

Type.—*Neopoppia metallica* Rohwer.

<sup>1</sup> Proc. U. S. Nat. Mus., vol. 23, pl. 30, fig. 53.

## NEOPOPPIA METALLICA, new species.

*Male*.—Length 5.5 mm. Clypeus deeply arcuately emarginate, lobes obtusely triangular; supraclypeal foveæ deep, circular in outline; middle fovea large, walls sloping, elongate triangular in outline; ocellar basin present and almost connected with the middle fovea, almost quadrate in outline; antennal furrows shallow; the frontal foveæ large, with sloping walls; postocellar area sharply defined laterally, about twice as wide as the cephal-caudad length; postocellar furrow wanting; postocellar line subequal with the ocellocular line; front with distinct, separate punctures; vertex and posterior orbits with widely separated punctures; flagellar joints diminishing in length to the fifth where they become subequal; thorax smooth, shining; legs hairy, tibiæ III heavy, thickening apically; tarsal joints three and four on all tarsi produced within; stigma robust, strongly tapering from the transverse radius; transverse median somewhat basad of the middle of the cell; third cubital cell parallel sided, on the radius longer than second; hypopygidium broadly rounded apically. Metallic blue-black, the blue more marked on the head, the body more purplish; four anterior legs below apices of femora, and the base of tibiæ III whitish; wings hyaline, beyond base of stigma infusate; venation dark brown.

Mount Salak, Java. One male collected May 15, 1909, by Bryant and Palmer.

*Type*.—Cat. No. 14502, U.S.N.M.

## Subfamily EMPRIINÆ.

## Genus TRICHIOTAXONUS Rohwer.

This genus belongs to the tribe Empriini. It may be readily separated from *Empria* by having the malar space wanting.

## Genus SALATIGIA Enslin.

This genus belongs to the tribe Lycaotini.

## Genus SENOCLIA Cameron.

Konow has placed this genus as a synonym of *Monophadnus* Hartig, but the following characters taken from the type of the genotype will serve to show that he is wrong in this.

Belongs to Blennocampini. Malar space wanting; eyes large, converging to the clypeus; clypeus truncate, slightly tapering apically; ocellar basin and antennal furrows present; lateral ocelli below the supraorbital line; scape somewhat triangular; pedicellum longer than wide, but broader at the apex; flagellum hairy, the first and second joints subequal; basal vein and transverse median interstitial or nearly so; basitarsis III, longer than the three following joints;



tarsal claws with four inner teeth, the basal portion stout and subdentate apically so at some angles there appear to be five teeth.

The two species placed in *Senoclia* by Kirby certainly belong there.

A good series of *Senoclia caerulea* Cameron has kindly been given to the National Museum by Prof. E. E. Green.

#### SENOCLIDEA, new genus.

Related to *Senoclia* Cameron, but may easily be separated from that genus by the dentation of the tarsal claws, longer third antennal joint, and position of the transverse median. In the dentation of the claws, and venation *Senoclidea* is like *Parazarca* Ashmead, but may be readily separated from it by the metapleuræ (in *Parazarca* the metepisternum and metepimeron are about the same size, the wing process is composed of both plates, and is not an elongate single piece). *Nesotomostethus* Rohwer has the antennæ and metapleuræ different.

Belongs to Blennocampini. Clypeus truncate; malar space wanting; eyes converging to the clypeus; lateral ocelli below the supra-orbital line; antennal furrows and ocellar basin present; antennæ thickening apically, third joint longer than the fourth, pedicellum widened apically, not much longer than wide; transverse median slightly basal of middle of cell; hind wings with one discal cell, the lanceolate cell with a long apical petiole; metepimeron smaller than the metepisternum; third wing process single, elongate, narrow; tarsal claws robust, cleft apically; basitarsis III subequal with the three following joints.

*Type*.—*Senoclidea amala* Rohwer.

#### SENOCLIDEA AMALA, new species.

Of the two species of *Senoclia* this is nearer *purpurata* (Smith), but the color of the legs will separate it from that species.

*Male*.—Length 8 mm. Supraclypeal foveæ poorly defined; middle fovea deep, large, walls straight, triangular in outline, the base of the triangle being above, and open below; antennal furrows nearly interrupted at the crest, but otherwise complete; ocellar basin well defined, not inclosed below, a deep fovea just below anterior ocellus; postocellar furrow present; postocellar area a little wider than long, defined laterally by foveæ rather than furrows; postocellar line much shorter than the ocellocular line; apical joints of the antennæ well defined, the apical joint nearly twice as long as the preceding, which is but little longer than wide; scutellum flat; stigma elongate, rounded below, truncate apically; third cubital cell longer than the second; transverse median a little basal of middle; tarsal claws deeply cleft and with a large, blunt inner tooth; hypopygidium broadly rounded apically. Blue-black, the abdomen pur-



plish; clypeus and base of all the tibiae (narrower on tibiae III) whitish; wings dusky, darker apically; venation dark brown.

Depok, Java. One male collected by Bryant and Palmer.

*Type*.—Cat. No. 14503, U.S.N.M.

*Monophadnus furvus* Konow and *M. æger* Konow may belong to this group. The descriptions will not apply to the above insect.

SENOCLIDEA TERMINATA, new species.

Differs from *amala* in the color of wings, shape of stigma, and other characters.

*Male*.—Length 7 mm. Lateral angles of the clypeus obtuse; supraclypeal foveæ confluent with the antennal foveæ; supraclypeal area flat; middle fovea goblet shape; antennal furrows complete; ocellar basin triangular in outline, walls rounded; postocellar area well defined, about one and one-half times as broad as long; a furrow from the anterior ocellus to postocellar furrow; postocellar line much shorter than the ocellocular line; antennæ hairy to apex, the third joint a little longer than the fourth; stigma long, nearly parallel-sided, apex broadly truncate; transverse median in basal third of cell; hypopygidium broadly rounded apically. Blue-black; tibiae externally white; wings hyaline; beyond base of stigma brown; venation black.

Los Banos, Luzon, Philippines. One male collected July, 1910, by E. M. Ledyard.

*Type*.—Cat. No. 14578, U.S.N.M.

SENOCLIDEA DECORA (Konow).

*Monophadnus decorus* KONOW, Wien. Ent. Zeit., vol. 26, 1899, p. 235.

Genus RHADINOCERAEA Konow.

RHADINOCERAEA LUCIDA, new species.

Agrees with the very brief description of *Rhadinoceraea similata* MacGillivray, but is smaller than that species.

*Female*.—Length 5 mm.; anterior margin of the clypeus truncate; supraclypeal foveæ deep, punctiform, not connected with the antennal foveæ; supraclypeal area evenly convex; middle fovea large, triangular, breaking through the crest above; antennal furrows sharply defined, complete; ocellar basin large, the walls sharply defined, triangular in outline with an indication of becoming heptagonal; postocellar line distinctly shorter than the ocellocular line; postocellar furrow sharply defined, angulate at middle; postocellar area more than three times as broad as the median length, sharply defined; antennæ rather short, scarcely tapering; head and thorax shining, nearly impunctate; stigma broader at the base, tapering to apex; transverse radius in apical fifth of cell; third cubital cell subequal in length

with the first and second; third transverse cubitus angulate near middle, with a spurious vein; sheath narrowing apically, straight above, gently rounded below. Black, rather densely clothed with gray pubescence; wings infuscate, iridescent; venation black.

Dane County, Wisconsin. Female collected, May 20, 1909, by W. S. Marshall.

*Type*.—Cat. No. 14756, U.S.N.M.

Genus PARACHARACTUS MacGillivray.

PARACHARACTUS NEVADENSIS (Cresson).

*Selandria (Monophadnus) nevadensis* CRESSON, Trans. Amer. Ent. Soc., vol. 8, 1880, p. 13.

*Female*.—Length 8 mm. Anterior margin of the clypeus slightly incurved, shining; malar space very narrow; middle fovea large and joining the ocellar basin; antennal furrow present, but not continuous; postocellar furrow distinct, broadly V-shaped; lateral ocelli on the supraorbital line; antennæ rather slender, the third and fourth joints of equal length; head and thorax shining; scutellum with some large punctures, the lobe at the sides indistinctly granular; hind basitarsis equal to second, third, and fourth; stigma rounded, broader in the middle; the lower margin of the sheath rounded; claws with an erect inner tooth; the third cubital cell longer than first and second, receiving the transverse radius near the apex; venation of hind wings normal. Color black; labrum white; tegulæ, upper part of pleuræ and the mesonotum rufous; legs below the knees yellowish-white, the tarsi infuscated. Wings dusky, iridescent; venation black.

The above is a description of Cresson's type. This species also occurs in southern California.

PARACHARACTUS LEUCOSTOMUS, new species.

*Female*.—Length 8 mm. Very robust. Anterior margin of the clypeus nearly truncate, shining, covered with sparse punctures; ocellar basin and middle fovea confluent, but immediately around the anterior ocellus is a depressed area; postocellar area well defined, the postocellar furrow curved; lateral ocelli on the supraorbital line; head behind the supraorbital line shining and impunctate, the front with fine punctures; the third antennal joint slightly longer than the fourth, the fourth and fifth equal; mesoscutum highly polished; scutellum with separate punctures, the lobe polished, but with a few large punctures; sheath very broad, rounded strongly beneath; claws with a large inner tooth; stigma rounded on the lower margin, broader in the middle; third cubital cell as long as the first and second, receiving the transverse radius near the apex; radial cell of hind wings appendiculate. Color black; labrum, knees, and legs

below white, the tarsi infuscated; pronotum, mesonotum, and tegulæ rufous. Wings hyaline, iridescent; venation black.

Claremont, California. Described from one female collected by C. F. Baker.

Perhaps this species is nearest to *nevadensis* (Cresson), but it is readily separated by the black mesopleuræ, as well as many structural differences.

*Type*.—Cat. No. 14557, U.S.N.M.

PARACHARACTUS NIGER, new species.

*Female*.—Length 5.5 mm. Not very robust. Clypeus longer in comparison to the length of the labrum than in any of the foregoing species, its anterior margin truncate; third antennal joint longer than the fourth, which is a little longer than the fifth; middle fovea very elongate and extending a good distance above the insertion of the antennæ; antennal furrows distinct and parallel to the middle fovea, not extending much higher on the head than the fovea; ocellar basin entirely wanting; posterior orbits narrow; postocellar area defined but not sharply so; head and entire thorax shining, almost impunctate; claws with an inner tooth; venation as in *leucostomus* except the stigma is angled at the base beneath; sheath rather robust, straight above, rounded below. Color black; legs below knees brownish; a very narrow margin of abdominal segments white. Wings hyaline, hardly iridescent; venation black.

Pasadena, California. Described from one female collected April 10, 1910, by F. Grinnell, jr.

*Type*.—Cat. No. 14558, U.S.N.M.

PARACHARACTUS CALIFORNICUS (Rohwer).

*Neocharactus californicus* ROHWER, Can. Ent., vol. 41, 1909, p. 89.

*Type*.—Cat. No. 14556, U.S.N.M.

The original description is erroneous in stating "nearer the base of the claw is another small tooth."

PARACHARACTUS NIGRISOMUS, new species.

*Male*.—Length, 4 mm. Anterior margin of the clypeus very shallowly, broadly, angulately emarginate, the surface convex, irregularly punctured; supraclypeal foveæ punctiform, not confluent with the antennal foveæ; supraclypeal area very short, gently convex; ocellar basin and antennal furrows obsolete; middle foveæ large, the dorsal walls sloping; frontal foveæ punctiform; postocellar area only defined by punctiform foveæ; postocellar line much shorter than the ocellular line; antennæ short, stout, flagellar joints constricted basally, the third antennal joint longer than the two following; scutellum punctured like the scutum, lobe polished, impunctate; stigma short, angulate near base, tapering to apex; hypopygidium rather narrow, broadly rounded apically; transverse median distinctly basad of middle of

discoidal cell. Black; apices of four anterior femora their tibiæ and tarsi (the tarsi are dusky), basal half of hind tibiæ white; the apical half of hind tibiæ and their tarsi brownish; wings hyaline, slightly dusky; venation dark brown, stigma pale brown.

Oxbow, Saskatchewan, Canada. One male collected June 21, 1907, by Frederick Knab.

*Type*.—Cat. No. 14499, U.S.N.M.

Genus NEOCHARACTUS Mac Gillivray.

NEOCHARACTUS MONTIVAGUS (Cresson).

*Selandria (Monophadnus) montivaga* CRESSON, Trans. Amer. Ent. Soc., vol. 8, 1880, p. 13.

*Paratype*.—Cat. No. 14555, U.S.N.M.

The teeth of tarsal claws are small.

Genus MONOPHADNUS Hartig.

MONOPHADNUS TRUNCATUS, new species.

*Female*.—Length, 5 mm. Anterior margin of clypeus truncate, surface with large, distinct punctures; supraclypeal area triangular, defined laterally by sutures slightly convex; supraclypeal foveæ deep, punctiform, not connected with the antennal foveæ; antennal furrows complete, except the interruption by the strong frontal crest; middle fovea elongate, sharply defined; ocellar basin triangular; postocellar area convex, more than twice as long as broad; postocellar furrow well defined; postocellar line very little shorter than the ocellular line; scape globose; pedicellum with the apical width and length subequal; first joint of the flagellum subequal in length with the two following; scutellum more closely punctured than the mesoscutum, lobe shining in middle, finely striate laterally; stigma broadest near base, tapering to apex; sheath parallel sided, truncate apically, rounded below. Black; posterior angles of the pronotum narrowly, tegulæ, and legs below apices of femora white; wings slightly dusky, hyaline; venation dark brown.

Oxbow, Saskatchewan, Canada. One female collected June 1, 1907, by Frederick Knab.

*Type*.—Cat. No. 14553, U.S.N.M.

Genus PERCLISTA Konow.

PERCLISTA QUERCUS, new species.

Superficially like *albicollis* (Norton), *marginicollis* (Norton), and *purpuridorsum* Dyar, but may be easily separated by the emarginate clypeus. The black stigma is a good recognition character for this species.

*Female*.—Length, 5.5 mm. Anterior margin of the clypeus deeply, angulately emarginate, lateral lobes broad rounded apically, surface



with distinct separate punctures; supraclypeal foveæ deep, punctiform, not confluent with the antennal foveæ; supraclypeal area rectangular in outline, convex; middle fovea triangular, more sharply defined above; ocellar basin large, extending to the crest, rounded below; postocellar area convex, slightly impressed medially, more than twice as wide as long; antennal furrows complete to near occiput where they are punctiform; third antennal joint longer than the fourth joint by about half the length of the fourth joint; scutellum more closely punctured than the scutum, lobe polished, shining; stigma long, angled near base, tapering to apex; sheath concave above, apex sharply pointed, obliquely truncate, lower margin broadening basally. Black; angles of pronotum, tegulæ, legs below coxæ white or whitish; lateral margins of prescutum, part of pronotum, upper part of meso-épisternum, and sides of abdomen rufo-piceous. Wings hyaline, slightly dusky; venation black.

*Male*.—Length, 5 mm. Differs from the female in color as follows: Rufo-piceous markings wanting; legs largely piceous, paler at joints. Hypopygidium broadly rounded apically.

Forest Hills, Boston, Massachusetts. Females and males sent by Dr. W. M. Wheeler, who states that the insect "has been very destructive to one particular tree on the Bussey grounds, almost completely defoliating the lower branches." The tree is one of the white oaks, probably *Quercus macrocarpa*.

*Type*.—Cat. No. 14554, U.S.N.M.

#### PERICLISTA ALBICOLLIS (Norton).

*Selandria albicollis* NORTON, Trans. Amer. Ent. Soc., vol. 4, 1872, p. 85, male.—

CRESSON, Trans. Amer. Ent. Soc., vol. 4, 1872, p. 155; vol. 8, 1881, p. 42.

*Phymatocera albicollis* KIRBY, List Hym. Brit. Mus., vol. 1, 1882, p. 165.—DALLA

TORRE, Cat. Hym., vol. 1, 1894, p. 177.

*Periclista albicollis* DYAR, Journ. New York Ent. Soc., vol. 7, 1898 (June), p. 130.

The type of this species seems to be lost; at least it is not in Philadelphia or New Haven. A female from the Belfrage collection is in the National Museum. It agrees well with Dyar's determination of the species. In the foregoing discussion this is taken as the correct interpretation of the species.

#### Subfamily SELANDRIINÆ.

In some of the oriental members of this subfamily in which the thorax is black it appears on first examination that the prepectus is wanting, but by careful study or by the aid of a drop of chloroform it can be made out. The venation in those in which trouble has been experienced is that of *Stromboceros* and allies, so no trouble should be had. It may be that this group will be better divided on characters of the metapleuræ, but at present not enough of the genotypes are



available for study, so attention can only be called to these characters. In *Strongylogaster* the third pleural suture is gently curved and the metepimeron is small. In *Selandria* the third pleural suture is angulate and the metepimeron forms an irregular L-shaped plate. In *Eustromboceros* the third pleural suture is subangulate, but the angulation is near the middle, and the two plates are of about the same size. In some genera when the metepisternum is large, as in *Selandria*, there is a cephal-caudad suture from near the middle of the coxa. Other differences have been noted, but these will suffice to show the variation in the metapleuræ and the possibility of it as a valuable character in classification. When sufficient material has accumulated, a tabular arrangement of these characters will be given.

#### Genus NESOSELANDRIA Rohwer.

##### NESOSELANDRIA CEYLONENSIS, new species.

Differs from *Nesoselandria imitatatrix* (Ashmead) in the different conformation of the head (more especially in the frontal area); the more strongly tapering antennæ; truncate stigma and other characters.

*Female*.—length 4 mm. Labrum truncate; clypeus truncate, lateral angles sharp; supraclypeal foveæ deep, confluent with the antennal foveæ; supraclypeal area large, flat; middle fovea, rather shallow, nearly circular in outline; frontal foveæ similar in shape to the middle fovea, but larger; from each lateral ocellus to the irregular frontal crest is a fine carina; postocellar area defined laterally by an elongate; punctiform fovea, otherwise not defined; postocellar line subequal with the ocellocular; occiput sharply defined; antennæ hairy, tapering apically, the third joint about one-fourth longer than the fourth; stigma broadest between the middle and the base, tapering to the narrowly truncate apex; sheath concealed. Black; tarsi white, infuscated. Wings brownish, hyaline; venation dark brown; hind wings paler than the fore wings.

Peradeniya, Ceylon. Female collected at light in September, 1911 (type); female collected April, 1902. Both received from E. E. Green.

*Type*.—Cat. No. 14577, U.S.N.M.

*Paratype*.—Returned to Prof. E. E. Green.

#### Genus NESOTAXONUS Rohwer.

*Taxonus* (*Nesotaxonus*) ROHWER, Proc. U. S. Nat. Mus., vol. 39, No. 1777, p. 111.

This genus was described as a subgenus of *Taxonus*, but belongs to the tribe Selandrini of the classification proposed in Proc. Ent. Soc. Wash., vol. 13, No. 4, p. 224.

## Genus STROMBOCEROS Konow.

For the time being it seems best to treat the various groups as subgenera rather than genera.

## PROSTROMBOCEROS, new subgenus.

Differs from *Eustromboceros* Rohwer in the pedicellum being longer than wide; and in the third pleural suture being angulate dorsally, the metepimeron a narrow plate which is roughly L-shaped. (In *Eustromboceros* the third pleural suture is subangulate ventrally, and is near the central axis of the metapleuræ, so the two plates are of nearly the same size. On the metepimeron there is a posterior fold. The posterior coxæ have two processes.)

*Type*.—*Stromboceros* (*Eustromboceros*) *melanopterus* Rohwer.

## STROMBOCEROS (PROSTROMBOCEROS) PLANIFRONS, new species.

*Male*.—Length 5 mm. Elongate, slender; supraclypeal foveæ confluent with the large antennal foveæ; supraclypeal area gently convex; middle fovea represented by a shallow, irregular depression; antennal furrows obsolete; frontal foveæ deep, circular in outline, separated from the eye by a distance slightly less than their width; ocellar basin obsolete; postocellar furrow wanting; postocellar area defined laterally by elongate foveæ, fully twice as wide as the cephalocaudal length; lateral ocelli well below the supraorbital line; posterior orbits narrow; antennæ long, filiform, pedicellum much longer than wide, and longer than the scape; thorax and legs normal; hypopygidium long, broadly rounded apically; stigma narrow, tapering apically; third cubital cell longer than the second. Black; five basal abdominal segments, four posterior legs (except apical joints of the tarsi), and the anterior legs below coxæ and except apical joints of tarsi, reddish-yellow; wings strongly infuscate; venation black.

Tjibodas, Mount Gede, Java, altitude 8,000 feet. Males collected by Bryant and Palmer.

*Type*.—Cat. No. 14504, U.S.N.M.

In the absence of the antennal furrows, ocellar basin, and narrow posterior orbits this species differs from the type of *Prostromboceros*.

## Subgenus STROMBOCERIDEA Rohwer.

## STROMBOCEROS (STROMBOCERIDEA) ALBIMACULATUS, new species.

Related to *pallidicornis* Rohwer, but the head is rather different, the stigma longer and the markings white.

*Female*.—Length 6.5 mm. Clypeus very gently, arcuately emarginate; supraclypeal foveæ elongate, deep but not sharply defined; supraclypeal area very slightly convex; middle fovea large,

subquadrate in outline, deep, walls nearly straight; antennal furrows wanting; frontal foveæ elongate, punctiform; ocellar basin U-shaped, slightly broader just below anterior ocellus; postocellar furrow not complete; postocellar area defined laterally by furrows, fully twice as wide as the cephal-caudad length; postocellar line perhaps a little shorter than the ocellocular; pedicellum subequal in length with the scape; fourth antennal joint slightly longer than the third, antennæ slender; stigma long, tapering from near the base to apex which is narrowly truncate; transverse radius slightly basad of the middle of the cell; third cubital cell shorter than the second; first transverse cubitus incomplete; transverse median a little more than its length from the apex of the cell; sheath very broad, straight above, tapering to truncate apex-beneath. Black; clypeus, labrum, four apical and two basal joints of the antennæ, pronotum, tegulæ, first perapteron, large spot on dorsal margin of metepisternum, margin of the prescutum, scutellum, scutellar lobe, four anterior legs except bases of coxæ, and tarsi, posterior coxæ and trochanters, base of posterior tibiæ, abdomen except apical segments and sides of some ventral segments, whitish. Wings hyaline, iridescent; venation dark brown.

Tjibodas, Mount Gede, Java. One female collected September 10, 1909, by Bryant and Palmer at an altitude of 4,500 feet.

*Type*.—Cat. No. 14506, U.S.N.M.

#### NEOSTROMBOCEROS, new subgenus.

Clypeus distinctly arcuately emarginate; eyes gently converging to the clypeus; malar space wanting; front without an ocellar basin; lateral ocelli well below the supraorbital line; posterior orbits rather narrow; pedicellum wider than long; the third antennal joint longer than the fourth; third pleural suture angulate ventrally extending from coxal process in a cephal-caudad direction then curving to the wing process; metepisternum with a long dorsal arm; metepimeron large; basitarsis III somewhat shorter than the following joints; claws cleft, with inner tooth of the cleft larger than the outer; first transverse cubitus wanting; transverse median slightly beyond the middle of the cell; hind wing with two discal cells, lanceolate cell sessile.

*Neostromboceros* may easily be separated from the other subgenera of *Stromboceros* by the cleft tarsal claws.

*Type*.—*Stromboceros* (*Neostromboceros*) *metallica* Rohwer.

#### STROMBOCEROS (NEOSTROMBOCEROS) METALLICA, new species.

Blue, abdomen with a reddish-yellow band, wings dark.

*Female*.—Length 8 mm. Supraclypeal foveæ confluent with the antennal foveæ; supraclypeal area flat; middle fovea elongate;

antennal furrows present to the frontal foveæ which are circular in outline, and rather large; postocellar furrow wanting; postocellar area defined laterally by furrows, but little wider than the cephal-caudad length; ocelli in a low triangle; postocellar line not half as long as the ocellocular line; antennæ hairy wanting beyond the fifth joint; sheath very broad, short, truncate apically; calcaria short, stout, sharp, apex hyaline; stigma rounded beneath, transverse radius leaving it at its apex. Blue black; four basal abdominal segments reddish-yellow; antennæ and legs (except bases of tibiæ which are white) black; wings strongly fuscous, venation black.

Singapore, Malay Peninsula. One female collected February 25, 1909, by Bryant and Palmer.

*Type*.—Cat. No. 14505, U.S.N.M.

Genus **STRONGYLOGASTER** Dahlbom.

**STRONGYLOGASTER REMOTUS**, new species.

Wings hyaline; legs and abdomen red; mesonotum shining.

*Female*.—Length 6 mm. Clypeus transversely granulato-reticulate, gently, arcuately emarginate anteriorly; supraclypeal area flat ventrally, slightly convex dorsally; supraclypeal foveæ large, deep, circular in outline; middle fovea well defined, triangular in outline; frontal crest straight; ocellar basin triangular in outline, deep below the anterior ocellus, shining; antennal furrows nearly complete above the crest; postocellar furrow present; the postocellar area about twice as wide as cephal-caudad length; antennæ short, the third and fourth joints subequal in length; head shining; mesothorax impunctate, polished; scutellum much elongate, twice as long as wide; stigma angulate at base, strongly tapering to the apex; third cubital cell longer than the second; propodeum emarginate posteriorly. Black; angles of the pronotum, tegulæ, and knees whitish; sides of prescutum piceous; abdomen and legs below middle of coxæ reddish (apical, dorsal margins of the dorsal segments are slightly whitish). Wings hyaline, iridescent; venation dark brown.

Gettysburg, Pennsylvania. One female collected May 5, 1908. Received from H. S. Harbeck.

*Type*.—Cat. No. 14411, U.S.N.M.

**STRONGYLOGASTER ALBOANNULATUS**, new species.

Close to *annulosus* Norton, from which it may be separated by the third and fourth antennal joints being of equal length (in *annulosus* the third is longer); scutellum dull and without large punctures over the entire surface (in *annulosus* the scutellum is shining and with large, separate punctures over the surface); and in having the black of the abdomen replaced by red.



*Female*.—Length 7.5 mm. Clypeus closely punctured, with a median carina, deeply, narrowly emarginate, lobes rounded apically; supraclypeal area elongate, strongly convex; supraclypeal foveæ deep, oval in outline; middle fovea large, shallow; frontal crest strong, unbroken; ocellar basin triangular in outline, not closed below, a triangular depression in front of the anterior ocellus; antennal furrows complete from the crest, but line-like near the occiput; postocellar area present, but weak; head finely punctato-granular, with large punctures on the front; antennæ short, the third and fourth joints equal in length; mesonotum finely granular, the sutures with large punctures (those of prescutum more dense); stigma robust, angulate near base, truncate apically; sheath with long hair, concave above, convex below, narrower apically. Black; palpi, angles of pronotum, tegulæ, narrow apical margins of all of the dorsal abdominal segments, knees and anterior tarsi yellowish-white; most of anterior femora, apical part of anterior tibiæ apical two-thirds of the four posterior tibiæ and all of their tarsi, base of abdominal segments reddish. Wings hyaline, iridescent; venation dark brown, apical half of stigma yellowish. Face with white pubescence.

Brown's Mills Junction, New Jersey. One female collected June 9, 1907. Received from Mr. V. A. E. Daecke.

*Type*.—Cat. No. 14410, U.S.N.M.

#### Subfamily NEMATINÆ.

##### Tribe HEMICHORINI.

*Hemichronini* ROHWER, Proc. Ent. Soc. Wash., vol. 13 (4), 1911, p. 225.

*Hoplocampinæ* ROHWER, Proc. Ent. Soc. Wash., vol. 13 (4), 1911, pp. 220 and 225.

The characters used to separate the Hoplocampinæ from the Nematinae, in my recent paper, have been proven unsatisfactory. The Hoplocampinæ have therefore been merged with the Nematinae, where they fall into the tribe Hemichorini. The subfamily character used in the paper was unstable in the genus *Pteronidea* and other genera of Nematinae.

The Nematinae as now recognized contains two types of larvæ, and some day satisfactory characters may be found in the adults which will separate them into two groups as indicated by the larvæ. Most of the aberrant larvæ belong to Hemichorini, although the Hemichorini also contains a few larvæ of the type found in the tribe Nematini.

#### Genus CRATEROCERCUS Rohwer.

##### CRATEROCERCUS FLORIDANUS, new species.

Related to *Craterocercus albidovariatus* (Norton) from which it may be separated by the following characters: Supraclypeal area rather narrow and strongly ridged; ocellar basin longer (dorsad-ventrad) than broad, the lower wall more sharply defined; stigma oblique.



*Female*.—Length, 7 mm. Clypeus deeply squarely emarginate, the lobes subparallel sided, rounded apically; supraclypeal foveæ deep, incompletely confluent with the antennal foveæ; antennal foveæ poorly defined; antennal furrows broad shallow, nearly complete; middle fovea deep, nearly circular in outline; ocellar basin angulate above, below the anterior ocellus parallel-sided; postocellar area well defined, divided by a longitudinal furrow in the middle; postocellar furrow present, straight, well behind the ocelli, connected with the angulate portion of the ocellar basin; postocellar line somewhat longer than the ocellocular line; third and fourth antennal joints subequal; mesonotum sparsely punctured, the anterior part of prescutum and posterior part of scutellum with the punctures denser; scutellar lobe coarsely, closely punctured; second recurrent interstitial with the second transverse cubitus; sheath straight above, strongly tapering below from the rounded apex. Black; clypeus, labrum, mandibles (except piceous apices), four anterior legs, posterior tibiæ except apices pallid; pronotum, tegulæ, propodeum, three basal segments of the abdomen testaceous; margins of prescutum and scutellar lobe rufo-testaceous. Wings hyaline, slightly yellowish; venation pale brown, costa and stigma yellowish.

*Male*.—Length 7 mm. Ocellar basin not as well defined as in female; hypopygidium long, broadly rounded apically. Structural characters those of female. Differs in color from the female in having the following parts black: clypeus, labrum, mandibles, prescutum, scutellar lobe, and propodeum.

Biscayne Bay, Florida. A female and male.

*Type*.—Cat. No. 14593, U.S.N.M.

#### CAULOCAMPUS, new genus.

Belongs to the Hemichorini and is related to *Craterocercus* Rohwer from which it may be separated by the following characters: Tarsal claws with an erect inner tooth near the middle; head and thorax shining, not coarsely punctured; third antennal joint longer than the fourth; eyes elongate oval; transverse radius wanting.

Clypeus shallowly emarginate; malar space practically wanting; eyes elongate oval; face very broad; pentagonal area obsolete; lateral ocelli on the supraorbital line; antennæ stout, pedicellum longer than wide, third joint longer than the fourth; head and thorax shining, not strongly punctured; hind basitarsis much shorter than the following joints; tarsal claws with a small erect inner tooth; sheath long, slender; venation similar to *Hoplocampa* Hartig, except the transverse radius is wanting and the anal cell is more broadly contracted.

Superficially *Caulocampus* resembles *Hoplocampa*, not only in the adults but in the larvæ (both larvæ being internal feeders). The

short malar space and absence of the transverse radius will readily separate *Caulocampus* from *Hoplocampa*.

*Type*.—*Priophorus acericaulis* MacGillivray.

CAULOCAMPUS ACERICAULIS (MacGillivray.)

*Priophorus acericaulis* MACGILLIVRAY, Can. Ent., vol. 38, 1906, p. 306.

*Priophorus acericaulis* BRITON, Ent. News, vol. 17, 1906, pp. 313-321, pl. 15, figs. 1, 23.

*Paratype*.—Cat. No. 14594 U.S.N.M.

Tribe NEMATINI.

DINEURIDEA, new genus.

Belongs to the Nematini and is related to *Dineura* Dahlbom, from which it may easily be separated by the simple tarsal claws.

Clypeus emarginate; malar space present; lateral ocelli well behind the supraorbital line; pentagonal area poorly defined; venation like *Dineura*; hind basitarsis much shorter than the following joints; claws simple; last ventral segment of female emarginate in the middle; cerci long; sheath stout, of the normal type.

*Type*.—*Marlattia erythrothorax* Rohwer.

Genus EUURA Newman.

EUURA SERISSIMÆ, new species.

Runs to *Ewura brachycarpæ* Rohwer in the latest table to these insects, but may easily be separated by the smaller size, more sharply pointed sheath, and different conformation of the head.

*Female*.—Length, 3 mm. Clypeus broadly arcuately emarginate, lobes low and broadly rounded; supraclypeal foveæ not sharply differentiated from the large antennal foveæ; supraclypeal area rectangular in outline, strongly carinated; middle fovea elongate, well defined, breaking through the crest; antennal furrows obsolete; ocellar basin sharply defined, pentagonal in outline; postocellar area not defined; postocellar furrow present; postocellar line subequal with the ocellocular line; flagellum wanting; stigma tapering from near base to apex; lower discal cell of hind wings longer than the upper; inner tooth of claw shorter than the outer; cerci long, hardly tapering; sheath rather broad at base, tapering (above and below) to an acute apex. Black; clypeus, labrum, mandibles (apices piceous), supraclypeal area, narrow inner orbits, angles of pronotum, tegulæ, legs (except piceous hind tibiæ and tarsi), and ventral segments testaceous or paler; wings hyaline, iridescent; venation pale brown, costa and base of stigma pallid.

Toronto, Ontario, Canada. One female bred from galls made on the leaf petiole of *Salix serissima*, by A. C. Cosens.

*Type*.—Cat. No. 14573, U.S.N.M.

## EUURA NIGRELLA, new species.

Runs in the table to the species of this genus to *Euura orbitalis* Norton, but may easily be separated from that species by the color. Superficially, *nigrella* is like *serissimæ*, but the head and sheath are quite different.

*Female*.—Length, 3 mm. Clypeus rather deeply, arcuately emarginate, lobes broad, obtusely rounded; supraclypeal foveæ confluent with the rather large antennal foveæ; supraclypeal area nearly rectangular in outline (somewhat broader below), strongly convex; middle fovea deep, elongate, not breaking through the crest; antennal furrows complete from crest to near lateral ocelli; ocellar basin indistinct, bounded by low, rounded walls; postocellar area bounded laterally by the punctiform ends of the antennal furrows; postocellar furrow wanting; postocellar line much longer than the ocellocular line; third and fourth antennal joints subequal; venation normal; stigma rounded below; teeth of claws subequal in length; cerci long, not tapering; sheath nearly parallel sided, apex obliquely truncate. Black; clypeus, labrum, mandibles (apices piceous), supraclypeal area, tegulæ, legs below coxæ (except the infuscate apices of hind tibiæ and all of their tarsi) testaceous. Wings hyaline; venation brown, stigma paler.

Fort Erie, Ontario, Canada. One female from M. C. Van Duzee, collected April 7, 1910.

*Type*.—Cat. No. 14574, U.S.N.M.

## Genus PONTANIA Costa.

## PONTANIA CRASSICORNIS, new species.

Related to *Pontania robusta* Marlatt, but is less robust, the emargination of the clypeus is deeper and the frontal crest is stronger.

*Male*.—Length, 3.5 mm. Clypeus deeply, narrowly emarginate, the emargination about the same size as the lobes, which are broadly rounded: supraclypeal foveæ punctiform, confluent with the antennal foveæ; supraclypeal area rectangular in outline, narrow, strongly convex; antennal foveæ very large; frontal crest very strong; middle fovea elongate, well defined, but not deep; antennal furrows obsolete; ocellar basin represented by a depression in front of the anterior ocellus; postocellar area convex, slightly impressed in the middle; postocellar line longer than the ocellocular line; antennæ robust, the third joint slightly shorter than the fourth; stigma gently rounded below, oblique apically; venation normal, except the lower discal cell of the hind wings is much longer than the upper; inner tooth of claw shorter than the outer; procidentia much broader than long, rounded apically; hypopygidium long, tapering to a narrow point apically. Black; antennæ beneath, head below antennæ, orbits,

pronotum, tegulæ, mesepisternum and epimerion, venter and legs testaceous; wings hyaline, venation testaceous.

Toronto, Ontario, Canada. One male bred from galls on *Salix humilis*, by A. Cosens.

*Type*.—Cat. No. 14572, U.S.N.M.

PONTANIA LUCIDAE, new species.

Related to *Pontania consors* Marlatt, but may be separated by its larger size and different conformation of the head. In *consors* the postocellar and ocellocular lines are subequal. The gall is quite different.

*Female*.—Length, 5.5 mm. Clypeus deeply, narrowly emarginate, the emargination narrower than the lobes, lobes broadly rounded apically; supraclypeal foveæ small, punctiform; supraclypeal area triangular in outline, gently convex; middle fovea oval in outline, small, well defined; frontal crest rather strong, gently emarginate; antennal furrows complete from above the crest to just beyond the ocelli; ocellar basin defined, the lower wall strong, the lateral walls poorly defined, a median furrow from the anterior ocellus; postocellar area defined laterally by the punctiform ending of the antennal furrows; postocellar line distinctly longer than the ocellocular line; antennæ stout, the third joint somewhat shorter than the fourth; stigma long, gently rounded below; inner tooth of claw stout, not as long as the outer one; sheath stout, of the type of group III; cerci long, not tapering. Black; clypeus, labrum, mandibles (except piceous apices), angles of pronotum, and tegulæ whitish; orbits, supraclypeal area, two lines on mesoscutum, spot on scutellum; abdomen (except dorsal middle) and legs (except the infuscate apices of tibiæ and tarsi) testaceous. Wings hyaline; venation dark brown.

*Male*.—Length, 4.5 mm. Characters of the head as in the female; antennæ stouter. Proclitella broader than long, apex broadly rounded; hypopygidium long, tapering to an obtusely pointed apex. Black; (clypeus, labrum) mandibles (except piceous apices), angles of pronotum and tegulæ whitish; flagellum beneath, supraclypeal area, orbits (except inner superior), venter, legs (except the infuscate apices of hind tibiæ and tarsi) testaceous. Wings hyaline; venation dark brown.

Toronto, Ontario, Canada. Males and females bred from galls on *Salix lucida*, by A. Cosens.

*Type*.—Cat. No. 14571, U.S.N.M.

PONTANIA AGAMA, new species.

Related to *P. parva* (Cresson), but the conformation of head is different, as will be seen by the following description.

*Female*.—Length 3.5 mm. Labrum broadly rounded, the apex depressed; clypeus broad, arcuately emarginate, the lobes low,



obtusely rounded; supraclypeal area very strongly convex, appearing acute, much longer than wide; antennal foveæ large, sharply defined; middle fovea large, shallow, not inclosed above; ocellar basin wanting; an elongate fovea in front of anterior ocellus; antennal furrows complete; postocellar furrow incomplete; postocellar line slightly shorter than the ocellocular line; antennæ hardly tapering, the third and fourth joints subequal; stigma acuminate; inner tooth of claw slightly shorter than the outer; sheath as in *parva*. Black; clypeus, labrum, mandibles (except piceous apices), malar space, angles of pronotum and tegulæ white; legs below coxæ (except femora beneath and apices of tarsi which are black) reddish-yellow; superior orbits piceous; wings hyaline, venation pale brown, costa and stigma pallid.

Mountains near Claremont, California. One female collected by C. F. Baker.

*Type*.—Cat. No. 14485, U.S.N.M.

**PONTANIA FOVEATA, new species.**

Belongs in Marlatt's division *I* and is related to *agama* Rohwer, but may easily be separated by the transverse fovea above the crest.

*Female*.—Length 4 mm. Labrum truncate; anterior margin of the clypeus gently arcuately emarginate, lobes broad, rounded apically; supraclypeal foveæ small, punctiform, well separated from the antennal foveæ; supraclypeal area convex, rectangular in outline, more prominent above; middle fovea broad, shallow, open above and with a furrow extending to the transverse fovea which is above the crest; a small depressed area in front of the anterior ocellus; antennal furrows represented by a broad depressed area; postocellar area not defined; postocellar line much shorter than the ocellocular line; antennæ wanting beyond the second joint; stigma broadest near base, tapering to apex; venation normal; teeth of claws large, subequal; sheath normal. Black; clypeus, labrum, mandibles (apices piceous), malar space, angles of pronotum, tegulæ and legs, whitish; posterior, superior, and part of inner orbits testaceous. Wings hyaline, iridescent; venation pale brown, stigma pallid.

Mountains near Claremont, California. One female collected by C. F. Baker.

*Type*.—Cat. No. 14569, U.S.N.M.

**PONTANIA NEVADENSIS var. NIGRIPECTA, new variety.**

Differs from *nevadensis* in the black mesosternum and in having the mesepisternum in part black. The male also differs in the postocellar furrow, not being defined, the head being more dull and the third antennal joint being but slightly shorter than the fourth, antennæ not as long as head and thorax.

Mountains near Claremont, California. Four females and 12 males collected by C. F. Baker.

*Cotype*.—Cat. No. 14486, U.S.N.M., and in C. F. Baker's collection.



## Genus PTERONIDEA Rohwer.

## Group TRILINEATÆ.

Marlatt in his Revision of North American Nematinae, page 66, places *similaris* (Norton), *robiniae* (Forbes) as synonyms of *trilineata* (Norton). An examination of the types of the species in question proves that they are distinct and may be separated by the following characters:

Lateral walls of ocellar basin obsolete; prescutum entirely pale; length 4.5 mm.

*robiniae*

Lateral walls of ocellar basin present; prescutum partly black; larger..... 1

1. Lateral walls of the ocellar basin meeting on the postocellar line, the anterior ocellus being inclosed in the basin.....*similaris*

Lateral walls of the ocellar basin meeting at the anterior ocellus, which is at the top of the basin forming part of the wall.....*trilineata*

## PTERONIDEA ROBINIÆ (Forbes).

*Type*.—Cat. No. 14413, U.S.N.M.

*Food-plant*.—*Robinia pseudacacia*.

## PTERONIDEA SIMILARIS (Norton).

Figured under name *trilineata*, pl. 14, fig. 28, Howard's Insect Book.

*Type*.—Cat. No. 14414, U.S.N.M.

*Food-plant*.—*Robinia pseudacacia*.

## PTERONIDEA TRILINEATA (Norton).

*Type*.—In the collections of the American Entomological Society.

*Food-plant*.—*Salix tristis*.

## Genus AMAURONEMATUS Konow.

## AMAURONEMATUS KNABI, new species.

In the current classification this will fall near *lincolnensis* Rohwer, from which it may easily be separated by the shape of the sheath, better defined ocellar basin, and other characters

*Female*.—Length 6 mm. Anterior margin of the clypeus deeply arcuately emarginate, lobes obtusely triangular; supra-clypeal foveæ punctiform, deep, well separated from the antennal foveæ; supra-clypeal area gently convex; middle fovea deep, elongate, breaking through the crest; ocellar basin well defined, the lower wall better defined; antennal furrows nearly complete, broadening at top; post-ocellar area gently convex, the anterior margin curved; postocellar line longer than the ocellocular line; antennæ of medium length, the fourth joint slightly longer than the third; scutellum with a longitudinal furrow, the scutellar lobe large, granular; stigma gently rounded below; venation normal; cerci long slender not tapering; sheath convex above, apex sharp, obliquely truncate below. Rufo-testaceous; antennæ, intraocellar area, spot on scutellum, first five tergal seg-

ments in the middle and margin of sheath black; head below antennæ, angles of pronotum, tegulæ and legs luteous. Wings hyaline, iridescent; venation pale brown, costa and stigma pallid.

Oxbow, Saskatchewan, Canada. Two females, one June 19, 1907 (type), the other June 15, 1907, collected by Frederick Knab, for whom the species is named.


*Type*.—Cat. No. 14559, U.S.N.M.

In the paratype the intraocellar area and fifth tergal segment are pale.

Genus NEMATUS Panzer.

NEMATUS PROCIDENTIUS, new species.

Related to the European *Nematus crassus* Fallén, but may be separated by the rufous coxæ, white tarsi and different conformation of the procidentia.

*Male*.—Length 9 mm., slender; antennæ 8 mm. Labrum broadly rounded apically; clypeus deeply, arcuately amarginate, lobes broadly triangular; supraclypeal area gently convex; supraclypeal foveæ deep, oval in outline; middle fovea with sloping sides, rather deep and in middle circular in outline; ocellar basin pentagonal, lateral walls well defined, lower walls rounded; frontal crest produced, unbroken; postocellar line distinctly longer than the ocellular line; postocellar area more than three times as wide as the cephal-caudad length; head with fine, irregular punctures; antennæ long, tapering, the third joint shorter than the fourth; prescutum with rather close, fine punctures, which become sparser on the scutum and practically wanting on the scutellum; stigma rounded below, apex tapering; first transverse cubitus wanting; legs normal; hypopygidium very long, obtusely triangular; last dorsal segment depressed on each side of the middle so the elevated portion is  shaped; procidentia scarcely produced, flattened apically; in the type the tenth dorsal segment is much produced. Black; legs except apical half of the posterior tibiæ (which are black) and the tarsi (which are whitish) red; tegulæ white. Wings clear hyaline, iridescent; venation dark brown.

Conewago, Pennsylvania. • One male collected June 23, 1911. Received from Mr. V. A. E. Daecke.

*Type*.—Cat. No. 14412, U.S.N.M.

Family PTERYGOPHORIDÆ.

Genus ACORDULECERA Say.

In describing the antennæ of this genus it has been stated that they are six jointed. This is an error, as they are really seven jointed, there being a small joint between the pedicellum and flagellum (see figure 6a and 6b). In one of the species described below the two

apical joints of the flagellum are so nearly consolidated as to appear as one joint. Magnification of 50 diameters shows the dividing suture. In the following descriptions the flagellum is considered to be the joints beyond the small ring-like joint.

The notauli are obsolete, or nearly so, the mesopresentum is therefore very poorly defined.

ACORDULECERA DORSALIS Say.

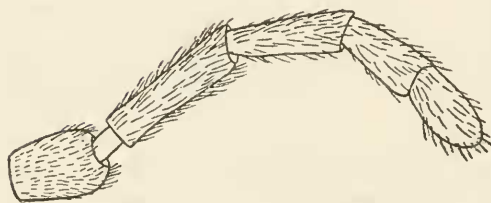
I have accepted Doctor MacGillivray's determination of this species, and on this basis the records of the larva having been bred from black oak and hickory are in error, as will be seen by the references given to some of the following species.



a

ACORDULECERA ANTENNATA,  
new species.

Separated from the other species of the genus by having the two apical joints of the flagellum nearly consolidated, so as to appear as one joint under ordinary magnification. The flagellum apparently three jointed.



b

FIG. 6.—ANTENNA OF ACORDULOCERA. a, ANTENNATA; b, BICLINIUS (EXCEPT THE SCAPE).

*Male*.—Length 2.75 mm. Labrum angulate apically; middle fovea wanting; frontal furrow present; antennal furrows complete to ocelli; ocellar basin obsolete; a shallow

depression at the side of each lateral ocellus; postocellar line much longer than the ocellular line; first joint of flagellum longer than the second; hypopygidium truncate apically. Black; apex of clypeus, labrum, mandibles (except piceous apices), and legs yellowish-white. Wings hyaline; venation pale brown. Face without dense white pubescence.

Newington, Fairfax County, Virginia. One male collected May 30, 1911, by S. A. Rohwer.

*Type*.—Cat. No. 14416, U.S.N.M.

The following species all have the flagellum distinctly four jointed:

I. SCUTELLUM PALE.

## ACORDULECERA SCUTELLATA, new species.

Related to *mixta* MacGillivray but may be separated from that species by having the first joint of the flagellum distinctly longer than the second.

*Female*.—Length 3.5 mm. Labrum obtusely angulate anteriorly; middle foveæ wanting; frontal furrow present; ocellar basin present, but shallow; antennal furrows present to ocelli, where they broaden into a shallow depression; postocellar line much longer than the ocellocular line; first joint of flagellum distinctly longer than the second. Black; most of antennæ, clypeus, labrum, mandibles (apices piceous), legs, tegulæ, scutellum, venter and a dorsal spot on the abdomen yellowish-white. Face without dense pubescence. Wings hyaline, venation pale brown, with the stigma paler.

*Male*.—What may be the male has the hypopygidium truncate apically, and the frontal furrow deeper below. In one of the males the supraclypeal area is pale.

West Point, Nebraska. One female collected in June. Onaga, Kansas. One male collected by Crevecoeur. Sheffield, Alabama. One male collected August 15, 1909, by H. S. Barber.

*Type*.—Cat. No. 14417, U.S.N.M.

## II. SCUTELLUM BLACK.

1. Ocellar basin present. (Frontal furrow present.)

A. Middle fovea present.

a. First joint of the flagellum distinctly longer than second

## ACORDULECERA FOVEATA, new species.

Similar to *maura* MacGillivray, but that species has the middle fovea wanting.

*Female*.—Length 3.5 mm. Labrum angulate apically; antennal furrows complete to ocelli, where they form shallow depressions; postocellar line subequal with the ocellocular line. Black; apex of clypeus, labrum, mandibles (apices piceous), palpi, pronotum, tegulæ, legs (except hind tarsi), venter and a spot on the tergum yellowish-white. Wings hyaline; venation dark brown. Face fairly well clothed with white hair.

*Male*.—Length 3 mm. Similar to the female, but the pronotum, tegulæ, and abdomen are black, and the postocellar line is slightly longer. Hypopygidium truncate apically.

Great Falls, Virginia. One female and four males collected May 12, 1911, by S. A. Rohwer. Dixie Landing, Virginia. One female collected June 30 by C. L. Marlatt.

*Type*.—Cat. No. 14418, U.S.N.M.

## ACORDULECERA PARVA, new species.

Related to *foveata* Rohwer, but the postocellar line is one third longer than the ocellocular line; and the hind tarsi are pale.

*Male*.—Length 2.5 mm. Hypopygidium broadly rounded apically. Black; antennæ, clypeus, labrum, mandibles (apices piceous), and legs yellowish-white. Venation pale brown; wings hyaline. Face without white hair.

Fort Lee, New Jersey. Four males bred from larvæ collected on young leaves of black oak. Van Cortland Park, New York. One male bred from larvæ collected on young leaves of black oak. Larvæ collected in the spring. Collected and bred by Dr. H. G. Dyar.

*Type*.—Cat. No. 14419, U.S.N.M.

One of the males has transverse radii in both wings.

## B. Middle fovea wanting.

b. Abdomen entirely rufo-testaceous.

## ACORDULECERA ERYTHROGASTRA, new species.

Judging from the description this species is colored like *A. maxima* MacGillivray, but the ocellar basin of that species is said to be wanting and the relation of the antennal joints is different.

*Female*.—Length 4 mm. Labrum obtusely angled apically; clypeus subconvex; antennal furrows complete to the ocelli, where they end abruptly; postocellar line subequal with the ocellocular line; first joint of the flagellum somewhat longer than the second. Black; apical part of clypeus, labrum, mandibles (apices piceous) and legs (except hind tarsi which are brown) yellowish-white; pronotum and abdomen rufo-testaceous. Wings hyaline; venation dark brown, lower part of stigma pale brown. Face with rather dense white hair.

Great Falls, Virginia. One female collected May 12, 1911, by S. A. Rohwer. One female from Georgia.

*Type*.—Cat. No. 14420, U.S.N.M.

c. Abdomen black.

## ACORDULECERA CARYÆ, new species.

Larva 6 *U* of DYAR, Can. Ent., vol. 27, 1895, p. 340.

*Acordulecera dorsalis*: DYAR, Journ. N. Y. Ent. Soc., vol. 5, p. 199.

*Female*.—Length 4 mm. Labrum rounded anteriorly; clypeus with the apical margin depressed, basally convex; supraclypeal area convex below, flattened above; frontal furrow long and at some angles the middle fovea seems to be present but it is not; antennal furrows complete to the lateral ocelli, where they form a shallow depressed area; a punctiform fovea on postocellar line behind the anterior ocellus; postocellar line very little longer than the ocellocular line; first joint of flagellum longer than the second. Black; clypeus, labrum, mandibles (apices piceous), palpi, legs (apical four joints of



hind tarsi pale brown) yellowish-white. Wings hyaline; venation pale brown, costa darker. Face without dense pubescence.

*Male*.—Length 3.5 mm. Hypopygidium truncate apically. Hind tarsi all pale.

Fort Lee, New Jersey. Ten females and 1 male bred from larvæ collected September 3, 1895, on new shoots, from a stump of *Carya porcina* Nuttall (pignut hickory). Larvæ collected and adults bred by Dr. H. G. Dyar.

*Type*.—Cat. No. 14421, U.S.N.M.

**ACORDULECERA NIGRATA, new species.**

Related to *A. caryæ* Rohwer, but easily separated by the clypeus not being depressed apically.

*Female*.—Length 4.5 mm. Labrum angulate apically; clypeus uniformly convex; supraclypeal area flat; antennal furrows complete to lateral ocelli where they form shallow depressions; a punctiform fovea on the postocellar line behind the anterior ocellus; postocellar line longer than the ocellocular line; first joint of the flagellum longer than the second. Black; clypeus, labrum, mandibles (apices piceous), palpi, legs below bases of coxæ (except hind tarsi which are dark brown) yellowish-white. Wings hyaline (slightly dusky below stigma); venation pale brown, costa darker. Face without white hair.

North Fork of Swannonoa River, Black Mountain, North Carolina. Two females collected in May by N. Banks. Castle Rock, Delaware County, Pennsylvania. One female collected May 26, 1908. Received from V. A. E. Daecke.

*Type*.—Cat. No. 14422, U.S.N.M.

*Paratype*.—Collection of N. Banks.

**2. Ocellar basin obsolete.**

**C. Middle fovea present.** (First joint of the flagellum longer than the second.)

**d. Postocellar line subseqat with the ocellocular line.**

**ACORDULECERA PORTIÆ, new species.**

Related to *A. munda* MacGillivray, but may be separated by the entirely black abdomen and black pronotum.

*Female*.—Length 4 mm. Labrum obtusely angulate anteriorly; clypeus broadly depressed apically, basally convex; supraclypeal area flat; middle fovea elongate and nearly confluent with the distinct frontal furrow; antennal furrows complete to ocelli, where they form shallow depressions; apical two joints of the flagellum subequal. Black; apical margin of clypeus, labrum, mandibles (except piceous apices), tegulæ, legs (except the black hind tarsi), yellowish-white. Wings dusky hyaline; venation pale brown, costa darker. Face without dense pubescence.

Newington, Fairfax County, Virginia. One female collected June 4, 1911, by S. A. Rohwer.

*Type*.—Cat. No. 14423, U.S.N.M.

e. Postocellar line longer than the ocellocular line.

ACORDULECERA NIGRITARSIS, new species.

*Female*.—Length 4 mm. Labrum rounded apically; apical margin of the clypeus broadly depressed; supraclypeal area flat; middle fovea oval in outline, and nearly confluent with the distinct frontal furrow; antennal furrows complete to ocelli, where they end abruptly; apical joint of the flagellum somewhat shorter than preceding. Black; clypeus, labrum, mandibles (apices piceous), palpi, tegulae, narrow line on pronotum and legs (except the brown hind tarsi) yellowish white. Wings hyaline, iridescent; venation dark brown. Face with rather dense white hair.

Newington, Fairfax County, Virginia; one female collected May 30, 1911, by S. A. Rohwer. Brown's Mills Junction, New Jersey. One female collected June 22, 1907, received from Mr. V. A. E. Daecke. Michigan. Long Island.

*Type*.—Cat. No. 14424, U.S.N.M.

In some of the paratypes the venter is pale, otherwise they seem to be the same.

ACORDULECERA BASIRUFA, new species.

Similar to *nigritarsis*, but can easily be distinguished by the reddish-yellow spot at the base of the abdomen.

*Female*.—Length 4.5 mm. Labrum subangulate apically; apical margin of the clypeus depressed, basally convex; supraclypeal area flat; middle fovea elongate; frontal furrow poorly defined; antennal furrows distinct, terminating at the lateral ocelli in a fovea; apical joint of the antennae shorter than the preceding. Clypeus, labrum, mandibles (apices piceous), palpi, tegulae, legs (except brown hind tarsi), and base of the abdomen reddish-yellow. Wings dusky hyaline; venation pale brown. Face with rather dense white hair.

Jacksonville, Florida; one female from Ashmead's collection. Enterprise, Florida; one female collected May 9. Kansas; female from C. F. Baker collection.

*Type*.—Cat. No. 14425, U.S.N.M.

D. Middle fovea wanting. (First joint of the flagellum longer than the second, postocellar line longer than the ocellocular line.)

ACORDULECERA FLAVIPES, new species.

Related to *A. dorsalis* Say, as restricted by MacGillivray teste a specimen from him, but may be superficially separated by the absence of much hair on the face.

*Female*.—Length 4 mm. Labrum rounded apically; apical margin of clypeus broadly depressed, basally convex; supraclypeal area flat; frontal furrow present; antennal furrows complete to ocelli, ending without depressions; apical joint of flagellum slightly longer than the preceding. Black; antennæ brown; clypeus, labrum, mandibles (apices piceous), palpi, legs, tegulæ, angles of pronotum, metanotum, base of abdomen, yellowish or yellowish-white. Wings hyaline; venation pale brown, costa darker. Face without white pubescence.

“Sawflies on Hickory.” Probably from near District of Columbia. Alabama; two females from C. F. Baker collection.

*Type*.—Cat. No. 14426, U.S.N.M.

**ACORDULECERA QUERCUS** new species.

*Acordulecera dorsalis* DYAR, Can. Ent., vol. 27, 1895, p. 208 and 340.

*Female*.—Length 3 mm. Labrum obtusely angulate; apical margin of the clypeus depressed, convex basally; supraclypeal area flat; frontal furrow present; antennal furrows present terminating at the ocelli without depressions; apical joint of the flagellum longer than the preceding. Black; apex of clypeus, labrum, mandibles (apices piceous), palpi, tegulæ and legs yellowish-white. Wings hyaline, iridescent; venation pale brown, costa darker. Face with rather dense white pubescence.

New York? Three females bred from larvæ collected on young leaves of black oak. Collected and bred by Dr. H. G. Dyar. This may have been from Fort Lee, New Jersey.

*Type*.—Cat. No. 14427, U.S.N.M.